

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

June 28, 1994

TO: Ronda Blayer, Hazardous Waste Permits Unit
Waste Management Division

FROM: David Slayton, Technical Support Unit
Waste Management Division

SUBJECT: Amended Closure Plan
Quanex Corporation
MID 082 767 591

RECEIVED
WMD RECORD CENTER

SEP 21 1994

I have reviewed the Post Closure Detection Monitoring Program found in Appendix I.3. After discussions with De, and review of the document, I have the following comments:

1. The plan must be revised to conduct post-closure groundwater monitoring under the requirements of 40 CFR 264, Subpart F. Act 64 Rule 299.9601(2)(f) requires compliance with Rule 299.9613(1), which requires compliance with the post-closure provisions of 40 CFR part 264, subpart G.

The applicable requirements of 40 CFR part 264, subpart G are found in 264.111(c), which refers to 264.228(b)(2) that the groundwater monitoring system must comply with 40 CFR 264 subpart F.

2. The plan must explain in greater detail why monitor well clusters MW-11 and MW-12 are proposed to be plugged and abandoned. The current closure and capping plan for the impoundment area states that the perimeter berm will be left in place. The monitor well clusters in question are placed on the outside of the berm, and could be retained. They are of particular importance due to the amount of historic data and the multiple depths monitored. It would be the preference of the WMD to retain these existing wells and supplement with new ones. The proposal to install new upgradient wells should also be reviewed by the company since additional upgradient wells were put in after the date of the plan (MW-1B, MW-1C, MW-17A, MW-17B).

Please contact me if you have any questions.

cc: De Montgomery, WMD/EPA reporting
Jan Sealock, WMD

David Slayton

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

June 28, 1994

RECEIVED
WMD RECORD CENTER

SEP 21 1994

TO: Ronda Blayer, Environmental Engineer,
Hazardous Waste Program Section,
Waste Management Division

FROM: Tarik Namour, Geotechnical Engineer,
Hazardous Waste Program Section,
Waste Management Division *Tarik*

SUBJECT: Quanex Corporation, Closure of Surface Impoundments
MID 082 767 591

Pursuant to your request, I have completed the review of the proposed closure, and post-closure plan amendment for the two surface impoundments at the Quanex Corporation in South Lyon, Michigan submitted by EDI Engineering & Science on behalf of Quanex Incorporation. Based upon the review, I have the following comments:

1. Final Cover System. Act 64 R299.9619(5) and 40 CFR § 264.310
- 1.1 The proposed final cover system does not meet the requirements of the State of Michigan Hazardous Waste Management Act 64 Rules 299.9619(5) and the technical performance requirements of RCRA subtitle C (landfill closure under 40 CFR 264 subpart N). In order for the proposed cap design to meet Act 64 cap design requirements, a protective layer with a thickness of 36 inches must be placed on the top of the drainage layer, and the thickness of the clay must be increased from 6 inches to 36 inches.

The major components of the final cover, as required by Act 64 R299.9619(5) and 40 CFR 264.310, starting from bottom and moving upwards, are as follows:

- a) Three (3) feet thick clay liner having hydraulic conductivity of no more than 1×10^{-7} cm/sec.
[Act 64 R 299.9619(5)(a)(i)]
- b) Geomembrane having sufficient strength and thickness to prevent damage under the pressures exerted by overlaying drainage layer, protective layer, and top soil and by any equipment used at the landfill during construction and maintenance (40 CFR 264.310)

Due to settlement and subsidence which occurs in the final cover, we recommend the use of very low density polyethylene (VLDPE). However, other material can be used as long as the requirements of RCRA and Act 64 are met.

on the top of the sand, then the applicant must demonstrate by means of design calculation that the sand drainage layer will not be clogged during the post-closure care period.

- 1.4 The geomembrane liner must be anchored in a trench. Figure 1.3 of the proposed final cover design does not include anchor trench. The anchor trench must be utilized to anchor the geomembrane and to prevent water from entering the contaminated area.
- 1.5 The applicant indicated that the Construction Quality Assurance (CQA) plan will be submitted for the MDNR's review. The CQA plan should be based on the EPA's technical guidance document "Construction Quality Assurance for Hazardous Waste Land Disposal Facilities," EPA 530-SW-86-031.
- 1.6 The applicant must submit detailed design calculations for the final cover. The design calculations should address the following:
 - ° Final cover settlement (cross-sections of waste and final cover and the physical characteristics of the waste such as void ratio, porosity, unit weight etc., should be included).
 - ° Final cover geomembrane stresses caused by localized subsidence and equipment.
 - ° Final cover drainage layer flow capacity.
 - ° Annual soil loss from final cover.
 - ° Leachate head on the bottom of impoundments.
 - ° Ditch design calculation.

2. Leachate collection and removal system (LCRS)

- 2.1 The applicant must propose a plan to demonstrate the process at which the leachate quantity will be monitored and removed from the landfill during the post-closure care period. The HELP model performed for Act 64 cap (attachment A) indicated that the quantity of liquid percolating from the barrier layer (FML/clay) is 1,054 gallons/year. It should be noted that the results obtained from the HELP model do not represent actual quantity of liquid percolating from the barrier layer. The actual quantity of liquid percolating from the barrier layer may be greater than the value obtained from the HELP model analysis. The leachate monitoring program will assist the MDNR in the evaluation of the final cover performance during the post closure care

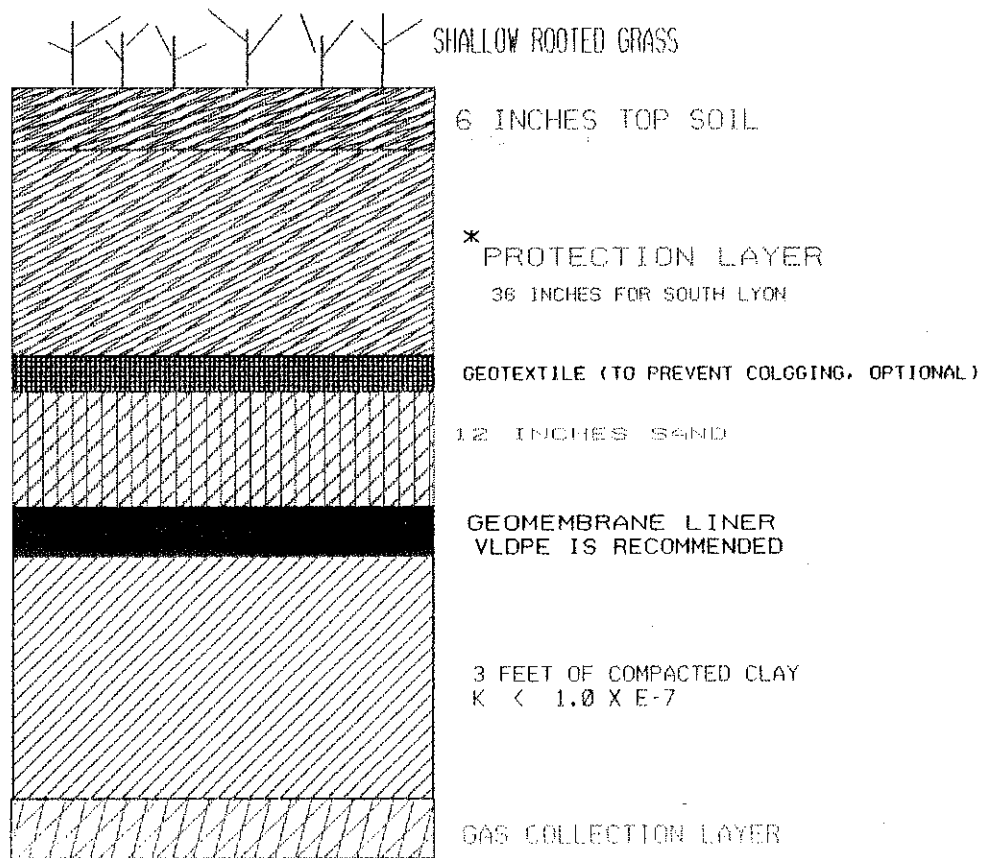


FIGURE 1. FINAL COVER COMPONENTS AS REQUIRED BY ACT 64

* THE THICKNESS OF PROTECTIVE LAYER AND TOP SOIL SHOULD BE EQUALE TO THE RECOMMENDED FOOTING DEPTH

 DUANEX CORP.. SOUTH LYON. MI
 JUNE 24. 1994
 a:\quanex1.out
 bv: TN

FAIR GRASS
 LAYER 1

VERTICAL PERCOLATION LAYER

THICKNESS	=	6.00 INCHES
POROSITY	=	0.4570 VOL/VOL
FIELD CAPACITY	=	0.1309 VOL/VOL
WILTING POINT	=	0.0580 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.1309 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.003000000026 CM/SEC

LAYER 2

VERTICAL PERCOLATION LAYER

THICKNESS	=	36.00 INCHES
POROSITY	=	0.4530 VOL/VOL
FIELD CAPACITY	=	0.1901 VOL/VOL
WILTING POINT	=	0.0848 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.1901 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.000720000011 CM/SEC

LAYER 3

LATERAL DRAINAGE LAYER

THICKNESS	=	12.00 INCHES
POROSITY	=	0.4170 VOL/VOL
FIELD CAPACITY	=	0.0454 VOL/VOL
WILTING POINT	=	0.0200 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.0454 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.009999999776 CM/SEC
SLOPE	=	3.00 PERCENT
DRAINAGE LENGTH	=	130.0 FEET

LAYER 4

BARRIER SOIL LINER WITH FLEXIBLE MEMBRANE LINER

THICKNESS	=	36.00 INCHES
POROSITY	=	0.4300 VOL/VOL
FIELD CAPACITY	=	0.3663 VOL/VOL
WILTING POINT	=	0.2802 VOL/VOL
INITIAL SOIL WATER CONTENT	=	0.4300 VOL/VOL
SATURATED HYDRAULIC CONDUCTIVITY	=	0.000000100000 CM/SEC
LINER LEAKAGE FRACTION	=	0.01000000

GENERAL SIMULATION DATA

SCS RUNOFF CURVE NUMBER	=	79.00
TOTAL AREA OF COVER	=	127000. SO FT

EVAPORATIVE ZONE DEPTH	=	24.00 INCHES
UPPER LIMIT VEG. STORAGE	=	10.8960 INCHES
INITIAL VEG. STORAGE	=	5.4258 INCHES
INITIAL SNOW WATER CONTENT	=	0.0000 INCHES
INITIAL TOTAL WATER STORAGE IN SOIL AND WASTE LAYERS	=	23.6538 INCHES

SOIL WATER CONTENT INITIALIZED BY PROGRAM.

CLIMATOLOGICAL DATA

DEFAULT RAINFALL WITH SYNTHETIC DAILY TEMPERATURES AND
SOLAR RADIATION FOR E. LANSING MICHIGAN

MAXIMUM LEAF AREA INDEX	=	2.00
START OF GROWING SEASON (JULIAN DATE)	=	133
END OF GROWING SEASON (JULIAN DATE)	=	279

NORMAL MEAN MONTHLY TEMPERATURES, DEGREES FAHRENHEIT

JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
-----	-----	-----	-----	-----	-----
21.60	23.30	33.00	46.30	57.20	66.80
70.80	69.20	61.70	50.70	38.50	27.00

AVERAGE MONTHLY VALUES IN INCHES FOR YEARS 74 THROUGH 78

	JAN/JUL	FEB/AUG	MAR/SEP	APR/OCT	MAY/NOV	JUN/DEC
-----	-----	-----	-----	-----	-----	-----
PRECIPITATION						

TOTALS	2.19 2.03	1.67 3.66	2.99 2.81	2.95 1.61	2.34 2.30	3.26 2.20
STD. DEVIATIONS	0.86 0.74	1.03 3.63	1.10 1.24	1.21 0.56	1.46 0.89	0.73 0.91
RUNOFF						

TOTALS	0.009 0.007	0.000 0.094	0.013 0.000	0.038 0.000	0.005 0.000	0.039 0.002
STD. DEVIATIONS	0.013 0.015	0.000 0.211	0.024 0.000	0.086 0.000	0.012 0.000	0.087 0.005
EVAPOTRANSPIRATION						

TOTALS	0.451 3.488	0.819 2.429	1.628 2.178	3.114 1.796	2.305 0.991	3.393 0.501
STD. DEVIATIONS	0.083 1.606	0.173 1.444	0.309 0.941	0.642 0.547	0.773 0.248	0.672 0.152

LATERAL DRAINAGE FROM LAYER 3

TOTALS	0.3088	0.5886	0.9926	1.1180	0.9625	0.6989
	0.5335	0.3859	0.3129	0.2743	0.2053	0.1861
STD. DEVIATIONS	0.3290	0.4923	0.6962	0.7545	0.6314	0.4314
	0.3112	0.2159	0.2077	0.2421	0.1923	0.2138

PERCOLATION FROM LAYER 4

TOTALS	0.0011	0.0010	0.0012	0.0012	0.0012	0.0011
	0.0011	0.0011	0.0011	0.0011	0.0010	0.0011
STD. DEVIATIONS	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000

AVERAGE ANNUAL TOTALS & (STD. DEVIATIONS) FOR YEARS 74 THROUGH 78

	(INCHES)	(CU. FT.)	PERCENT
PRECIPITATION	30.00 (5.928)	317521.	100.00
RUNOFF	0.208 (0.274)	2201.	0.69
EVAPOTRANSPIRATION	23.093 (2.064)	244402.	76.97
LATERAL DRAINAGE FROM LAYER 3	6.5674 (3.9516)	69505.	21.89
PERCOLATION FROM LAYER 4	0.0134 (0.0006)	141	0.04
CHANGE IN WATER STORAGE	0.120 (4.024)	1273.	0.40

$\approx 1.054 \text{ in/yr.}$

PEAK DAILY VALUES FOR YEARS 74 THROUGH 78

	(INCHES)	(CU. FT.)
PRECIPITATION	3.08	32596.7
RUNOFF	0.344	3644.5
LATERAL DRAINAGE FROM LAYER 3	0.0720	762.5
PERCOLATION FROM LAYER 4	0.0000	0.5
HEAD ON LAYER 4	11.0	
SNOW WATER	3.05	32303.4

MAXIMUM VEG. SOIL WATER (VOL/VOL) 0.3055

MINIMUM VEG. SOIL WATER (VOL/VOL) 0.0779

FINAL WATER STORAGE AT END OF YEAR 78

<u>LAYER</u>	<u>(INCHES)</u>	<u>(VOL / VOL)</u>
1	1.37	0.2281
2	8.15	0.2264
3	0.70	0.0584
4	15.48	0.4300
SNOW WATER	0.00	

Quanex Corporation
Michigan Seamless Tube Division
400 McMunn
South Lyon, Michigan 48178
(313) 437-8117



Quanex

Michigan Seamless
Tube Division

CC EPA
Northville

MID 082 767 591

John J. Yetso
General Manager

January 3, 1990

VIA FEDERAL EXPRESS

Ronda L. Hall
Environmental Engineer
Hazardous Waste Permits Section
Waste Management Division
Department of Natural Resources
Ottawa Building South
608 West Allegan
Lansing, Michigan 48909

RECEIVED

JAN 4 1990

Waste Management
Division

Re: Container Storage Unit Closure Certification

Dear Ms. Hall

Per your instructions, I am enclosing five copies of Quanex's revised certification that the container storage area at our plant in South Lyon has been closed in accordance with specifications in the approved closure plan. This revised report contains information addressing the alleged deficiencies outlined in your November 15, 1989 letter to Donald Comfort of Quanex.

If you need any further information concerning this matter, please contact me.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'J.J. Yetso'.

J.J. Yetso
General Manager

RECEIVED

JAN 05 1990

WASTE MANAGEMENT DIV

STATE OF MICHIGAN



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

NATURAL RESOURCES COMMISSION
THOMAS J. ANDERSON
MARLENE J. FLUHARTY
GORDON E. GUYER
KERRY KAMMER
D. STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE

~~XXXXXXXXXXXXXXXXXXXX~~
Gordon E. Guyer, Director

June 25, 1987

JUL 06 1987

U. S. EPA, REGION V
SWB - PMS

RECEIVED
JUN 29 1987
U.S. EPA, REGION V

Mr. James C. Hill
Tube Group President
Quanex Corporation
Michigan Seamless Tube Division
400 McMunn
South Lyon, Michigan 48178

RE: Surface Impoundment Closure Plan
MID 082767591

Dear Mr. Hill:

We have completed a review of your March 10, 1987 submitted closure plan for your surface impoundment units at the above referenced facility.

Based on our review, we have determined that the plan is not approvable and must be revised to meet the closure and post-closure requirements of 1979 Public Act 64. Our review comments are provided in the enclosure to this letter. You should submit the revised closure plan as soon as possible, but no later than July 22, 1987.

Please be aware that the closure of RCRA interim status units (surface impoundment units) does not release the facility from its responsibilities under the Hazardous and Solid Waste Amendments of 1984 (HSWA). Corrective action may still have to be addressed if the U.S. EPA determines that a release of hazardous waste or hazardous constituents has taken place.

If you have any questions, please contact me.

Sincerely,

Andrea Schoenrock
Act 64 Permits Unit
Waste Management Division
517-373-2730

cc: Mr. K. Burda/C&E File
Mr. D. Slayton
Ms. C. Witt, U.S. EPA
Ms. M. Murphy, U.S. EPA
Ms. L. King

Review Comments

1. To ensure contamination of subsoils has not occurred in the container storage area, soil and concrete borings should be taken at the cracks, low areas, joints, entrances and around the outer perimeter before closure is certified. Concrete samples should be ground-up and analyzed for the wastes stored and their constituents. All concrete borings should have regrouting done before filling. If contamination is found, a grid system should be established over the area. Methods and a location map should be included in the plan. Costs for sampling and analysis must be included in the closure cost estimates.
2. A random sampling strategy is acceptable, but more samples should be taken. The company should take four samples per quadrant, and have four quadrants per impoundment. This makes 16 samples per impoundment which would be equivalent to a 60 ft. grid.
3. Barium levels in the sand and gravel background samples appear to be elevated. We recommend that four samples be taken at the northeast corner of the site near McMunn Road to confirm barium levels. These samples can be taken near surface, below topsoil.
4. The closure plan must specify soil sampling methods and analytical methods.
5. The closure plan must specify where off-site disposal of any hazardous waste or contaminated soil will be.
6. The closure plan must include a description of the steps needed to decontaminate facility equipment used during closure per R299.9601(3).
7. When closure is completed, please submit:
 - a) The certifications required by 1979 P.A. 64, R299.9601(3) which adopts 40CFR 265.115;
 - b) Documentation that a clean closure has been achieved following the closure plan; and
 - c) A certification signed by a responsible corporate officer indicating a change in status, to that of a generator storing less than 90 days, per 40CFR 270.11 which is adopted by reference in R299.11003(1)(n).
8. A copy of our Draft Certification Checklist is enclosed for your reference.

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REGION V

DATE: 3/16/84 5WMB
RE: Installation Name Quanex Corp. Mac Steel Div.
Installation Address 3100 Brooklyn Rd., Jackson, MI
EPA ID# MID068814482
FROM: Judy Greenberg, Environmental Protection Assistant
ADP Team, Regulatory Analysis & Information Unit (5HW)
TO: State Technical Unit # 3

Attention: _____

Attached for your review is a copy of Contingency plan
and training program

Note: This was sent to us by name
for the above-referenced facility.

Cover letter date 2/23/84Rec'd in Region 3/15/84Rec'd in RAIU 3/15/84

Action required Pat- FRI, this should ultimately end
up in the compliance file. WFG
3/16/84

Reviewer's summary: _____

PLEASE RETURN THIS FORM ALONG WITH ALL RELATED MATERIAL TO RAIU ATTN: Judy Greenberg

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

September 8, 1986

TO: Hakim Shakir, Supervisor, GWQD, Southeast Michigan Office
FROM: Lynne King, HWD, Southeast Michigan Office *LK*
SUBJECT: Quanex Corp. Michigan Seamless Tube Division
400 McMunn St., South Lyon, MI

At the rear of the property, Quanex has two large surface impoundments referred to as "sludge drying beds". On my inspection of August 27, 1985, I was accompanied by both representatives of EPA, Chicago and Laura Nuhn of your office. It was agreed at the time, that the beds were in violation of State 245 and 641 regulations but state action was withheld pending EPA's determination regarding RCRA regulation. The sludge has been delisted by EPA and recently EPA has determined that the sludge drying beds are therefore also not regulated as hazardous wastes.

EPA's concern is that the state will not pursue action to require proper cleanup of the surface impoundments. I have assured them as per previous discussions with your office that this issue would be pursued.

As previously agreed, this is a formal referral to your office for follow up. Our files are, as usual, open to your staff and I will be happy to respond to any questions.

In addition, you may want to include this site on the 307 list for evaluation and scoring.

Please keep me informed of actions taken and progress made so I may continue to assure EPA of our intentions.

I will be conducting an inspection of this facility sometime this month. If someone from your staff would like to accompany me, please get in touch with me as soon as possible.

LK/bs

cc: Margo Dilday, EPA Region V
B. Okwumabua
A. Schoenrock

RECEIVED
SEP 11 1986
U.S. EPA, REGION V
WASTE MANAGEMENT DIVISION
HAZARDOUS WASTE ENFORCEMENT BRANCH

INTERIM STATUS SURFACE IMPOUNDMENT INSPECTION FORM

Facility's Name Quanex Corp. Michigan Seamless Tube Division INSPECTION FORM D11
Date 9-10-89 I.D. # MID 082767591 Part 6 Rules
P.A. 64 of 1979

Rule 611(3) refers to 40 CFR, Part 265, Subpart K, 265.220-265.230

Violation
Class Yes No N/A

DESIGN REQUIREMENTS (265.221)

1) Do surface impoundments with respect to each new unit, replacement of an existing unit or lateral expansion of an existing unit, have the following for units within the interim status area: (265.221(a))

a) Two or more liners. (265.221(a))	(I)	___	___	<u>✓</u>
b) Leachate collection system. (265.221(a))	(I)	___	___	<u>✓</u>
c) Notified the Director within sixty days prior to receiving waste. (265.221(b))	(I)	___	___	<u>✓</u>

OR

2) Received an exemption from the liner or double liner requirements from the Director. (265.221(c & d))

(I) ___ ___ ✓

GENERAL OPERATING REQUIREMENTS (265.222)

3) Is the impoundment maintained and operated to prevent overtopping and at least two feet. (265.222)

(I) ___ ___ ✓

OR

4) Owner/operator has certification (kept at facility) from a qualified engineer that two feet is not necessary to prevent overtopping. (265.222(b))

(I) ___ ___ ✓

Comments: Old surface impoundment going through closure.
Out of service since November, 1988.

Surface Impoundment Inspection Form
Form D11

Violation Class	Yes	No	N/A
--------------------	-----	----	-----

CONTAINMENT SYSTEM (265.223)

- 5) Do the earthen dikes have a protective cover to minimize wind and water erosion. (265.223)

(I)	___	___	✓
-----	-----	-----	---

WASTE ANALYSIS AND TRIAL TESTS (265.225)

- 6) Analysis in addition to waste analysis required in 265.13, whenever an impoundment is to be used to: (265.225(a))

- a) Chemically treat a waste substantially different from previous waste treated in the impoundment. (265.225(a)(1))

(I)	___	___	✓
-----	-----	-----	---

OR

- b) Chemically treat waste using a substantially different process than previously used. (265.225(a)(2))

(I)	___	___	✓
-----	-----	-----	---

7. Does the owner/operator before treating:

- a) Conduct waste analysis and trial treatment tests. (265.225(a)(2)(i))

(I)	___	___	✓
-----	-----	-----	---

OR

- b) Obtain written documentation on similar treatment of similar waste to show compliance. (265.225(a)(2)(ii))

(I)	___	___	✓
-----	-----	-----	---

INSPECTIONS (265.226)

- 8) The owner/operator must inspect:

- a) The freeboard level each operating day. (265.226(a)(1))

(II)	___	___	✓
------	-----	-----	---

- b) The impoundment, including dikes and vegetation once a week to look for leaks, deterioration, etc. (265.226(a)(2))

(II)	___	___	✓
------	-----	-----	---

Comments: _____

Surface Impoundment Inspection Form
Form D11

Violation Class	Yes	No	N/A
--------------------	-----	----	-----

SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE (265.229)

9) Ignitable or reactive waste must not be placed in a surface impoundment unless:

a) The waste is treated, etc. before or after placement in the impoundment so:

i) The waste/mixture is no longer ignitable or reactive. (265.229(a)(1))

(I) ✓

ii) Taken precautions to prevent reactions which generate extreme heat, fire, gases, damage the facility, or other like means that threatens human health & environment. (265.229(a)(2) refers to 264.17(b))

(I) ✓

OR

b) The waste is protected for conditions/material which may cause it to ignite or react. (265.229(b)(1))

(I) ✓

c) Obtain a certification (keep at facility) from a qualified that the design and operating plans prevent ignition or reaction. (265.229(b)(2 & 3))

(I) ✓

OR

c) Use solely for emergencies. (265.229(c))

(I) ✓

SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES (264.230)

10) Was incompatible wastes placed in the same impoundment without 264.17(b) being complied with. (265.230)

(I) ✓

CLOSURE AND POST-CLOSURE CARE (265.228)

11) Did the owner/operator close the surface impoundment in compliance with 265.228.

(I) ✓

Comments:

In process of closing impoundment in compliance of 265.228

Quanex Corporation
400 McMunn
th Lyon, Michigan 48178
(313) 437-1715



February 3, 1986

State of Michigan
Department of Natural Resources
S.E. Michigan Field Office
15500 Sheldon Road
Northville, Michigan 48167

RECEIVED

FEB 04 1986

Attention: Ms. Lynne King

HAZARDOUS WASTE DIV

E.P.A. ID MID 082 767 591


Dear Ms. King,

Enclosed for your information is a copy of our revised closure plan as you requested in your letter of October 25, 1985. Please note that this plan addresses storage in the surface impoundments and in containers.

If you have any questions please call me at 313 437-8117 extention 181.

Sincerely,

QUANEX CORPORATION
Michigan Seamless Tube Division


Donald F. Comfort, P.E.
Engineering Manager

cc: C. D. Simpson

Enclosure

SECTION I
CLOSURE PLAN

This section is submitted in accordance with the requirements of 40 CFR 270.14(b)(13) and 40 CFR 264.110 through 264.120. This plan identifies all steps necessary to completely close the Quanex Corporation's hazardous waste storage areas at the end of their intended operating life. A post-closure plan is not required because this is not a disposal facility and all wastes and any contaminated subsoils will be removed at closure.

Quanex will keep a copy of the approved closure plan and all revisions on-site until the certification of closure completeness has been submitted to and accepted by the EPA, Region V. Quanex will notify the Regional Administrator at least 180 days prior to the date final closure is expected to begin. Upon completion of closure, Quanex will submit to the Regional Administrator a certification by both Quanex and a local independent registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan.

I-1 CLOSURE PLAN [40 CFR 270.14(b)(13) and 264.112]

I-1a Closure Performance Standard [40 CFR 264.111]

This closure plan has been designed to ensure that the facility will not require further maintenance and controls, that threats to human health and the environment will be minimized or eliminated, and that escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground, surface waters, or atmosphere will be avoided. The following sections describe the specific activities which will be performed by Quanex to satisfy the closure performance standard.

I-1b Partial and Final Closure Activities [40 CFR 264.112(a)(1)]

No partial closure activities are planned at this time. Final closure of both the hazardous waste container storage area and the two surface impoundments will begin in April of 1988. When closure does occur, the procedures presented in Section I-1d will be followed. If hazardous waste storage is modified in any way during the life of this facility or if the K062, spent pickle liquor is delisted, the closure plan will be amended accordingly.

I-1c Maximum Waste Inventory [40 CFR 264.112(a)(2)]

The maximum inventory of hazardous wastes in storage or treatment at any time during the operating life of the facility is given in Table I.1 below. While the quantity of waste stored at any one time is usually less, these figures were used to provide a "worst case" scenario for financial estimation purposes.

Approximately 110 gallons of waste barium and two cubic yards of corrosive solids are stored in the hazardous waste container storage area which is located across from the pickle house (see Figure B.1). The container storage area became operational during 1984. The barium and corrosive solids are the only hazardous drums in the waste container storage area that are stored over 90 days.

Table I.1 includes an estimate of the amount of potentially contaminated soil beneath and surrounding the surface impoundments. This estimate was based on the nature of the waste stored in the impoundments, the length of time the impoundments have been in service, and the data from existing soil borings. A breakdown of removal, transportation, and disposal costs is presented in Section I-4.

TABLE I.1
MAXIMUM WASTE INVENTORY

<u>Waste Name</u>	<u>Quantity</u>	<u>Waste #</u>
<u>Container Storage Area:</u>		
Barium	2 drums (110 gals)	D005
Corrosive Solids	6 drums (2 cu yds)	D002
<u>Surface Impoundments:</u>		
o Neutralized spent pickle liquor	5,800,000 gallons	K062
o Contaminated soil*	2,500 tons	K062

* Assuming maximum contamination depth of 1.0 feet.

I-1d Inventory Removal, Disposal and/or Decontamination of Equipment [40 CFR 264.112(a)(3) and 204.114]

Container Storage Area:

All hazardous wastes stored in the hazardous waste container storage area will be manifested and hauled away for appropriate disposal by a licensed waste hauler. Incompatible wastes will not be transported together.

Following the removal of these wastes, the waste container storage area will be decontaminated. Since the storage area was recently built, contamination of the pad is expected to be minimal. The decontamination procedure will be to steam clean the pad, scrape the remaining residue, if necessary, and then vacuum the generated material into drums. After decontamination is completed, the pad will be inspected for cracks or deterioration. The storage area will be repaired (if necessary) and placed back in service to temporarily store (less than 90 days) waste containers.

A sample of the final rinse water will be taken and analyzed for pH and barium. The sample will be obtained for both parameters using Method 1.2.1.3 and analyzed using Methods 9040, 1310 and 7080 of Test Method for Evaluating Solid Waste, Physical/Chemical Methods, USEPA SW-846.

If the results show that the rinse water is not below laboratory detection limits, then the area will be steamed, rinsed and sampled until the waste constituents are not detected. All personnel involved with decontamination will be properly equipped with caustic resistant coveralls, boots, gloves, and safety goggles.

Track-out of hazardous waste during decontamination will be prevented by requiring that personnel working in the storage area wash their boots and gloves in hot soapy water before leaving the area. This washwater will be vacuumed into the drums for disposal. Protective clothing and any equipment used in the decontamination will be drummed for disposal.

Surface Impoundments:

The surface impoundments will be emptied and closed separately. First, the majority of the roughing impoundment's contents will be discharged to the finishing impoundment by gravity flow through the control gate. A portable gas-driven pump will be used to pump any remaining liquid into the finishing impoundment.

The lime stabilized waste pickle liquor sludge (LSWPLS) remaining in the bottom of the impoundment was delisted on June 5, 1984. This rule, which excludes LSWPLS generated by plants in the iron and steel industry from the "derived-from" rule in 40 CFR 261.3, requires the generator to periodically analyze the sludge to ensure that it does not exhibit any hazardous waste characteristics. Before the sludge is removed to the on-site drying beds, four representative samples will be analyzed for corrosivity, ignitability, reactivity, and EP toxicity, in accordance with the delisting rule.

The underlying soils will be sampled using a two-dimensional, random sampling strategy.* After the sludge has been removed, a grid system will be established over the closure area by dividing the impoundment into four equal quadrants. Each quadrant will then be divided into an imaginary 10 x 10 grid to get 100 rectangles of equal size. These grid lines will be numbered, in each dimension, from 1 to 9.

Two samples will be taken in each quadrant. Sampling location will be determined by using a random number table to select two digit coordinate points. The initial sample depth increment will be approximately one foot. These samples will be analyzed for the following site-specific waste constituents: chromium, hexavalent and total; total lead, total nickel, cyanide, total metals, and EP toxicity.

Four background soil samples were taken in an uncontaminated area upgradient of the regional groundwater flow. These samples were analyzed for the EP toxic metals and zinc, using a total metals test procedure. See Appendix I-1 for a summary of the analytical results. The first set of soil samples will then be compared to the background levels established above. The Gosset Student T-test at a 95% confidence level will be used to determine whether any contamination is present.

* This sampling strategy is based on the Petition to Delist Hazardous Wastes, a Guidance Manual, published by the U.S. EPA in April 1985.

If contamination above background levels is detected, the contaminated area will be excavated. This excavation will be based on the established grid system interval. A circle with a radius equal to the grid interval will be drawn around each contaminated sample point. Excavation depth will be to the deepest point of contamination.

After the excavation is completed, the grid will be resampled to verify that the area is uncontaminated. If any contamination (above background levels) is detected, the excavation procedure will be repeated until levels are equal to or less than background values.

After the roughing impoundment has been closed and the new settling tank has been installed, the contents of the finishing impoundment will be discharged to Yerkes Drain under the NPDES permit and the impoundment closed using the same approach discussed above.

All associated facility equipment will be dismantled and decontaminated, including the control gate, outlet weir, and piping. The equipment will be steam cleaned and all contaminated rinse water will be collected in drums. A sample of the final rinse water will be analyzed for EP toxic metals and zinc to determine if any contamination is present. If the results show that the rinse water is above acceptable limits, the equipment will be steam cleaned and sampled again until no contamination is detected. All contaminated rinse waters will be disposed of at a licensed facility.

I-1e Schedule for Closure [40 CFR 264.112(a)(4)]

The estimated beginning closure date is April 1988. The following is an approximate schedule of closure activities.

Container Storage Area:

- Day 1 Terminate hazardous waste activity in container storage area and start decontamination and closure procedures.
- Day 2 Remove and dispose of wastes from the container storage area.
- Day 3 Decontaminate container storage area.

- Day 4 Visually inspect area for cracks or unsuitable surfaces and repair as necessary
- Day 5 Analyze rinse water.
- Day 26 Certification of closure by Quanex and an independent registered professional engineer.

Surface Impoundments:

- Day 1 Divert waste stream from roughing impoundment to finishing impoundment.
- Day 8 Begin draining roughing impoundment.
- Day 16 Sample sludge in both impoundments.
- Day 19 Analyze sludge.
- Day 47 Excavate and dispose of sludge in roughing impoundment.
- Day 61 Sample underlying soil.
- Day 63 Analyze soil samples.
- Day 91 Excavate and dispose of soil if necessary.
- Day 105 Resample underlying soil.
- Day 107 Analyze soils.
- Day 135 Stop flow to finishing impoundment.
- Day 142 Begin draining finishing impoundment.
- Day 149 Excavate and dispose of sludge and remove facility equipment.
- Day 163 Sample underlying soil and decontaminate facility equipment.
- Day 166 Analyze soil samples.
- Day 194 Excavate and dispose of soil if necessary.
- Day 208 Resample underlying soil.
- Day 236 Backfill impoundment.
- Day 238 Certification of closure by Quanex and an independent registered professional engineer.

I-1f Extensions for Closure Time [40 CFR 264.113(a) and (b)]

Quanex does not foresee needing an extension for closure time for the closure of the hazardous waste container storage area. As outlined in the schedule above, an extension for over 180 days may be required for the surface impoundments if it is necessary to excavate any contaminated soils.

I-2 POST CLOSURE PLAN [40 CFR 270.14(b)(13)]

Post closure care will not be needed at this facility because all hazardous waste and any contaminated soils will be disposed of off-site.

I-3 NOTICE IN DEED AND NOTICE TO LOCAL LAND AUTHORITY [40 CFR 270.14(b)(14), 264.119, 264.120 and 264.120]

Because Quanex is only a hazardous waste storage facility and not a disposal facility, it is not required to either place a notation in the deed informing potential purchasers of the restrictions associated with a disposal site or to notify the local zoning authority.

I-4 CLOSURE COST ESTIMATE [40 CFR 270.14(b)(15) and 264.142]

Table I.2 outlines the estimated cost of closure for the container storage area and Table I.3 outlines the estimated closure costs for the surface impoundment. Cost estimates are based upon current quotations obtained from an experienced contractor. Closure will begin at least six months after notification of closure. The work will be performed by contractors and all waste will be disposed of off-site. The closure cost estimate will be updated annually.

I-5 FINANCIAL ASSURANCE MECHANISM FOR CLOSURE CARE AND LIABILITY COVERAGE [40 CFR 270.14(b)(15), 264.143(d) and 264.151(e)]

Quanex Corporation, Michigan Seamless Tube Division, initially furnished an irrevocable letter of credit in the amount of \$2,044,096 for closure costs of hazardous waste management areas at the South Lyon facility. Quanex Corporation subsequently met the financial guarantee for closure according to 40 CFR 264.151(f). A copy of this letter is included in Appendix I-2.

I-6 POST CLOSURE ESTIMATE [40 CFR 270.14(b)(16) and 264.144]

Quanex Corporation, Michigan Seamless Tube Division, will remove all hazardous wastes and contaminated soils from the site at the time of closure. Therefore, no post-closure cost estimate is required.

TABLE I.2
CLOSURE COST ESTIMATE
FOR CONTAINER STORAGE AREA

1.	Transport and chemically treat waste liquid at Nelson Industrial Services	
	2 drums @ \$100/drum	\$ 200
2.	Storage area and equipment decontamination	
	1,000 sq.ft. @ \$0.90/sq.ft.	900
3.	Inspect and repair surface of the waste container pad	
	8 hours @ \$60/hour	480
4.	Analytical costs	
	1 sample @ \$24/sample	24
5.	Clean-up supervision	
	On-site supervision (8 hrs @ \$40/hr + \$50 exp)	370
	Project management (2 hrs @ \$60/hr)	120
	Certification by independent Professional Engineer (6 hrs @ \$50/hr)	<u>300</u>
	Subtotal	\$2,390
	10% Contingencies	239
	10% Administrative Expenses	<u>239</u>
	TOTAL CLOSURE COSTS	\$2,870

TABLE I.3
CLOSURE COST ESTIMATE
FOR THE SURFACE IMPOUNDMENTS

1.	Sludge sampling and analysis (4 samples/impoundment)	
	o Sampling (2 people/2 days)	\$ 1,920
	o Analysis (ignitability, corrosivity, reactivity, and EP toxicity)	3,360
2.	Sludge disposal (4,500 cubic yards/impoundment)	117,000*
3.	Soil sampling and analysis (8 samples/impoundment)	
	o Sampling (2 people/4 days)	3,165
	o Analysis (total arsenic, barium, cadmium, chromium, copper, lead, mercury, silver, selenium and zinc, hexavalent chromium; EP toxicity and total cyanide)	18,080
4.	Excavate soils (2,500 tons/impoundment @ 1 foot depth)	75,000***
5.	Soil disposal and transportation	
	o Transportation (6000 tons @ \$15/ton)	90,000
	o Disposal (5000 cubic yards @ \$160/ton)	400,000
6.	Equipment decontamination	
	o Dismantling and steam cleaning control gate weir	1,400
	o Dismantling and steam cleaning piping	5,000
7.	Backfilling impoundment with clean fill	5,000
8.	Supervision and Quanex Certification (50 hrs @ \$40/hr)	2,000
9.	Independent PE certification (16 hrs @ \$50/hr)	<u>800</u>
	Subtotal	\$718,000
	10% Contingencies	72,000
	10% Administrative Expenses	<u>72,000</u>
	TOTAL CLOSURE COSTS	\$862,000

* Assuming sludge is nonhazardous and disposed of in on-site dry beds.

** Assuming underlying soils are sampled and analyzed twice.

*** If soils are determined to be contaminated, soils will be resampled at three-inch intervals to determine the actual depth of the contamination. Reduced excavation will be implemented if possible.

I-7 FINANCIAL ASSURANCE MECHANISM FOR POST-CLOSURE CARE [40 CFR 270.14(b)(16) and 264.145]

Quanex Corporation, Michigan Seamless Tube Division, will remove all hazardous wastes and contaminated soils from the site at the time of closure. Therefore, financial assurance for post-closure costs are not required.

I-8 LIABILITY REQUIREMENTS [40 CFR 270.14(b)(17) and 264.147]

Quanex Corporation, Michigan Seamless Tube Division, meets the liability requirements for sudden accidental occurrences with a Certificate of Liability Insurance included in Appendix I-3.

Quanex Corporation, Michigan Seamless Tube Division, meets the liability requirements for nonsudden accidental occurrences with the financial test for liability coverage included in Appendix I-4.

I-8a Coverage for Sudden Accidental Occurrences [40 CFR 264.147(a)]

Quanex Corporation, Michigan Seamless Tube Division, meets the liability requirements for sudden accidental occurrences with the Certificate of Liability Insurance issued by Frank B. Hall and Co. on October 18, 1985 and signed by their agent, James A. Cunningham. A copy of this certificate is provided in Appendix I-3.

I-8b Coverage for Nonsudden Accidental Occurrences [40 CFR 264.147(b)]

Quanex Corporation, Michigan Seamless Tube Division, meets the requirements for the Financial Test for Liability Coverage in accordance with Section I-8b(2). The letter, signed by D.J. Staas, Vice President, Chief Financial Officer, and certified by Touche, Ross and Company, was submitted on November 27, 1984 in accordance with 40 CFR 264.151(g). A copy of this letter is provided in Appendix I-4.

EPA

NATURAL RESOURCES COMMISSION

LARRY DEVUYST
PAUL EISELE
GORDON E. GUYER
JAMES P. HILL
DAVID HOLLI
O. STEWART MYERS
JOEY M. SPANO



JOHN ENGLER, Governor

DEPARTMENT OF NATURAL RESOURCES

ROLAND HARMES, Director

SOUTHEAST MICHIGAN DISTRICT HEADQUARTERS
Waste Management Division
38980 Seven Mile Road
Livonia, Michigan 48152
February 23, 1993

Mr. Gary L. Hellner, Assistant Treasurer
Quanex Corporation
1900 West Loop South
Houston, TX 77027

RE: MID 082767591
Quanex Corp., Michigan Seamless Tube Div.
Financial Review

Dear Mr. Hellner:

Staff of the Michigan Department of Natural Resources (MDNR) conducted a financial review for your hazardous waste disposal facility located at 400 McMunn Street, South Lyon, Michigan. Financial assurance and financial responsibility for closure/post-closure and liability coverage is required by Michigan Hazardous Waste Management Act, public act 64 of 1979, as amended, MCLA 299.501 et seq (Act 64) specifically, Part 7, R 299.9701 to R 299.9711. RCRA interim status facilities had until August 14, 1989, to comply with the Part 7 Rules.

As a result of the financial review, staff of the MDNR have determined that your facility is in compliance with the requirements of Act 64, Part 7 Rules, as addressed in the enclosed inspection form.

This letter does not preclude nor limit the MDNR's ability to initiate any other enforcement action, under state or federal law, as deemed appropriate.

If you have any questions feel free to contact me.

Sincerely,

Christopher L. Silva
Environmental Quality Analyst
Waste Management Division
313-953-1457

Enclosure
CS/cs
cc: B. Okwumabua

EPA

FINANCIAL RECORD REVIEW CHECKLIST

FRR DATE: 2/19/93
 REVIEWER: Chris Silva

FACILITY NAME: Oranex Corp. Michigan Seamless Tube Division
 ADDRESS: 400 McMunn Street, South Lyon, MI 48178
 EPA I.D. #: MI0 082-767-591

FINANCIAL MECHANISMS FOR LIABILITY COVERAGE

	EXPIRATION DATE *	ANNUAL AGGREGATE AMOUNT **
RCRA FINANCIAL TEST	<u>1/1/</u>	\$ <u> </u>
ACT 64 FINANCIAL TEST	<u>1/1/</u>	<u> </u>
RCRA CORPORATE GUARANTEE	<u>1/1/</u>	<u> </u>
<input checked="" type="checkbox"/> ACT 64 CORPORATE GUARANTEE	<u>2/28/94</u>	<u>1,972,505</u>
INSURANCE	<u>1/29/94</u>	<u> </u>
POLICY NUMBER	<u> </u>	<u> </u>

FINANCIAL MECHANISMS FOR CLOSURE AND POST-CLOSURE CARE COSTS

	EXPIRATION DATE *	ACCOUNT NUMBER	AMOUNT **
ACT 64 FINANCIAL TEST	<u>1/1/</u>	<u> </u>	\$ <u> </u>
<input checked="" type="checkbox"/> ACT 64 CORPORATE GUARANTEE	<u>2/28/94</u>	<u>NA</u>	<u>1,972,505</u>
LETTER OF CREDIT	<u>1/29/94</u>	<u> </u>	<u> </u>
SURETY BOND	<u>1/1/</u>	<u> </u>	<u> </u>
AUTO-RENEWAL	<u> </u>	<u> </u>	<u> </u>
CERTIFICATE OF DEPOSIT	<u>1/1/</u>	<u> </u>	<u> </u>
NON-RENEWAL	<u> </u>	<u> </u>	<u> </u>
CERTIFICATE OF DEPOSIT	<u>1/1/</u>	<u> </u>	<u> </u>
TRUST AGREEMENT	<u>1/1/</u>	<u> </u>	<u> </u>

* FINANCIAL TESTS AND CORPORATE GUARANTEES "EXPIRE" 90 DAYS AFTER THE CLOSE OF THE FIRM'S FISCAL YEAR.

** SHOW ONLY THE AMOUNT OF COVERAGE DESIGNATED IN THE MECHANISM FOR THIS FACILITY.

PLEASE SEND A COPY OF THIS PAGE TO THE HAZARDOUS WASTE
 PERMITS SECTION, WASTE MANAGEMENT DIVISION

FINANCIAL RECORD REVIEW CHECKLIST

Cost Estimate for Closure and Post-Closure Care
(Circle the Appropriate Estimate)
R 299.9702(1) [40 CFR §§ 264.142 and 264.144]

Violation
Class Yes No N/A

1. Is the written closure cost estimate available and on site? 264.142(d)

Note: Indicate the amount: \$

1,972,505

✓
(\$1,652,419⁰⁰)
Actual cost estimate
1989, Amended closure plan.
\$950,000 already incurred
for solidification of plane

2. (a) Is the written post closure cost estimate available and on site [264.144(d)] (Required for disposal surface impoundments, land treatment, landfills and waste piles)?

Note: Indicate the amount: \$

1,972,505

(b) Is the contingent post closure cost estimate available for units that do not meet minimum technology requirements [264.197, 264.228, and 264.258] (includes tank systems, surface impoundments, waste piles, and misc. units)?

3. a) Have any revisions been made to the closure/post closure plan which increase the cost of closure/post closure [264.142(c) and 264.144(c)]?

b) If yes, were the cost estimate(s) revised to reflect this increase within 30 days of approval to modify closure/post closure plan?

4. Have the closure/post closure cost estimates been adjusted

FINANCIAL RECORD REVIEW CHECKLIST

	Violation Class	Yes	No	N/A
for inflation by either recal- culating cost estimates or using an inflation factor derived from the most recent implicit price deflator [264.142(b) and 264.144(b)]?	_____	<input checked="" type="checkbox"/>	_____	_____

Note: Annual adjustment for inflation only required during
"active" life of facility (i.e., until released from
liability coverage requirements.

a) Have closure/post closure
cost estimates been revised
within 30 days after firm's
fiscal year (for facilities
using financial test or
corporate guarantee)?

_____	<input checked="" type="checkbox"/>	_____	_____
-------	-------------------------------------	-------	-------

b) For all other financial
mechanisms, have closure/
post closure cost estimates
been revised within 60 days
prior to anniversary date of
establishment?

_____	_____	_____	<input checked="" type="checkbox"/>
-------	-------	-------	-------------------------------------

Comments: _____

FINANCIAL RECORD REVIEW CHECKLIST

Financial Assurance for Closure/Post Closure Care R 299.9703

5. Indicate all of the following financial mechanism(s) which are used to establish financial assurance for closure/post closure care. Also, transfer this information, with the amount, account number, and expiration date, to page 1 of this checklist.

<u> </u>	Trust fund Rule 704
<u> </u>	Surety bond guaranteeing performance of closure/post closure care. Rule 705
<u> </u>	Letter of Credit, Rule 706.
<u> </u>	Certificate of Deposit or Time Deposit account. Rule 707
<u> </u>	Closure post/closure insurance Rule 708
<u> ✓ </u>	Financial test and corporate guarantee for closure/post closure Rule 709.

Violation

Class	Yes	No	N/A
-------	-----	----	-----

6. If multiple mechanisms are used are they limited to trusts, surety bonds, letters of credit certificates of deposits and insurance? Rule 703(2)

<u> </u>	<u> </u>	<u> </u>	<u> ✓ </u>
-------------------	-------------------	-------------------	--------------

7. Are financial assurance mechanisms used for more than one facility? Rule 703(3). If so, indicate their names and ID number.

<u> </u>	<u> ✓ </u>	<u> </u>	<u> </u>
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Comments: ⑦ TXD 000449397, Gulf States Tube Division,
 Hwy 59 and Scott Road
 Rosenberg, TX 77471

FINANCIAL RECORD REVIEW CHECKLIST

CLOSURE AND POST-CLOSURE FINANCIAL MECHANISMS

	Violation Class	Yes	No	N/A
8. Trust fund. Rule 704				
A. Is trust agreement on DNR approved form? Rule 704(1).	_____	_____	_____	✓
B. Is trust funded at 100% closure/post closure cost. Rule 704(2).	_____	_____	_____	✓
If no, indicate amount: \$ _____				
9. Surety Bond. Rule 705.				
A. Is bond executed on DNR approved form? Rule 705(1).	_____	_____	_____	✓
B. Is sum of bond equal or greater than closure/post closure costs? Rule 705(4).	_____	_____	_____	✓
If no, indicate amount: \$ _____				
10. Letter of Credit. Rule 706.				
A. Is letter of credit executed on a form approved by Director. Rule 706(1).	_____	_____	_____	✓
B. Is letter of credit accompanied by a letter from owner/operator providing the following: EPA ID number; name and address of facility; amount of funds assured for closure/post closure? Rule 706(3).	_____	_____	_____	✓
C. Is letter of credit equal to or greater than closure/post closure costs? Rule 706(5).	_____	_____	_____	✓
If no, indicate amount: \$ _____				

FINANCIAL RECORD REVIEW CHECKLIST

	Violation Class	Yes	No	N/A
11. Certificate of deposit/time deposit. Rule 707.				
A. Is certificate or account in name of Director only? Rule 707(2).	_____	_____	_____	<u>✓</u>
B. Is the agreement on a DNR approved form? Rule 707(3).	_____	_____	_____	<u>✓</u>
C. Does the certificate or account renew automatically?	_____	_____	_____	<u>✓</u>
D. If the certificate or account does not renew automatically, is the maturity not less than one year?	_____	_____	_____	<u>✓</u>
E. Is certificate for amount equal to or greater than closure/post-closure cost estimates? Rule 707(4).	_____	_____	_____	<u>✓</u>
If no, indicate amount: \$ _____				

12. Closure/post closure insurance. Rule 708.

A. Does certificate of insurance use wording approved by director; and	_____	_____	_____	<u>✓</u>
B. Is a certified true and complete copy of the policy provided? Rule 708(1).	_____	_____	_____	<u>✓</u>
C. Is insurer licensed or authorized to provide insurance in Michigan?	_____	_____	_____	<u>✓</u>
D. Is the closure/post closure insurance policy issued for face				

FINANCIAL RECORD REVIEW CHECKLIST

	Violation Class	Yes	No	N/A
amount at least equal to current closure/post closure cost estimate? Rule 708(4).	_____	_____	_____	<u>✓</u>
If no, indicate amount: \$ _____				
13. If using multiple assurance mechanisms, do they equal or exceed closure/post closure cost estimates? Rule 703(2).	_____	_____	_____	<u>✓</u>
Indicate total amount: \$ _____				
14. Financial test. Rule 709. Does the owner operator meet A or B? Rule 709(1).				(if using financial test for both closure/post- closure and liability, go to item 20)
A. All of the following:				
1. Two of the following three ratios:				
a. Ratio of liabilities to net worth less than 2.	_____	<u>✓</u>	_____	_____
b. A ratio of sum of net income plus depreciation depletion and amortization to total liabilities of more than 0.1.	_____	<u>✓</u>	_____	_____
c. A ratio of current assets to liabilities of more than 1.5. and:	_____	<u>✓</u>	_____	_____
2. Net working capital and tangible net worth each not less than 6 times the sum of closure and post/closure cost estimates and the plugging & and abandonment costs estimates.	_____	<u>✓</u>	_____	_____
3. Tangible net worth not less than \$10,000,000 and:	_____	<u>✓</u>	_____	_____

FINANCIAL RECORD REVIEW CHECKLIST

- | | Violation
Class | Yes | No | N/A |
|--|--------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 4. Assets in the U.S. not less than 90% of total assets or not less than 6 times the closure/post closure costs and the plugging & abandonment costs estimates. | | All assets in U.S. | | |
| | | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> |
| 5. Total assets in Michigan not less than \$50,000,000 or not less than 6 times sum of approved closure/post closure cost estimates of Michigan facilities? (larger of the two). | | | <input checked="" type="checkbox"/> | |

(OR)

B. All of the following:

1. An acceptable Standard and Poors or Moody's Rating for the most recent bond issuance.

☐ ☐ ☐ ☒

Note: Acceptable bond ratings for Standard & Poors include; AAA, AA, A, & BB. The "-" or "+" modifier (e.g., A-) is acceptable. Acceptable Moody's rating include; Aaa, A, Baa. The numerical modifier of 1, 2 or 3 (e.g., A2) is acceptable.

2. Tangible net worth not less than 6 times the sum of closure/post closure cost estimates and the plugging and abandonment cost estimates.
3. Tangible net worth not less than \$10,000,000
4. Assets in the U.S. not less than 90% of total assets or not less than

☐ ☐ ☐ ☒
☐ ☐ ☐ ☒

FINANCIAL RECORD REVIEW CHECKLIST

	Violation Class	Yes	No	N/A
6 times closure/post closure costs and the plugging and abandonment cost estimates,	_____	_____	_____	✓
5. Total assets in Michigan at least \$50,000,000 or not less than 6 times sum of approved closure/post-closure cost estimates for Michigan facilities (larger of the two)?	_____	_____	_____	✓
C. Is the letter from the chief financial officer worded exactly as specified on the Act 64 financial test form?	_____	✓	_____	_____
D. Is a copy of the independent CPA's report on examining the firm's year end financial statements included?	_____	✓	_____	_____
E. Is a copy of the special report by an independent CPA that states both of the following included?				
1. The Independent CPA compared data from chief financial officer which specifies having been derived from the independent audit-year-end financial statement; and	_____	✓	_____	_____
2. No matters came to their attention indicating that the information requires adjustments.	_____	✓	_____	_____
15. Corporate guarantee. Rule 709(10).				
A. Does the guarantor meet the financial test requirements and has all				

FINANCIAL RECORD REVIEW CHECKLIST

information been provided

Violation
Class

Yes

No

N/A

(use item 14 for review)?

☒

☐

☒

- B. Is the guarantee worded exactly
as specified in the Act 64
Corporate Guarantee for Closure
or Post-Closure Care form?

☒

☐

☐

Comments on closure and post-closure financial mechanisms: _____

FINANCIAL RECORD REVIEW CHECKLIST

Liability Requirements R 299.9710

16. Check the appropriate mechanism or combination of mechanisms used to demonstrate the required liability coverage. Rule 710(6).

☒ Act 64 Financial Test
☒ Act 64 Corporate Guarantee
☐ RCRA Financial Test
☐ RCRA Corporate Guarantee
☐ Insurance
☐ Combination Act 64 Financial Test & Insurance
☐ Combination Act 64 Corp. Guarantee & Insurance
☐ Combination RCRA Financial Test & Insurance
☐ Combination RCRA Corp. Guarantee & Insurance

	Violation Class	Yes	No	N/A
17. Does owner/operator maintain liability coverage for sudden and accidental occurrences in an amount not less than \$1,000,000 per occurrence with an annual aggregate not less than \$2,000,000? Rule 710(1).	_____	_____	_____	<input checked="" type="checkbox"/>
18. For surface impoundment, landfill, or land treatment does owner/operator maintain liability coverage for nonsudden accidental occurrences in an amount not less than \$3,000,000 per occurrence with an annual aggregate of not less than \$6,000,000? Rule 701(2).	_____	_____	_____	<input checked="" type="checkbox"/>

Comments: _____

FINANCIAL RECORD REVIEW CHECKLIST

LIABILITY COVERAGE FINANCIAL MECHANISMS

	Violation Class	Yes	No	N/A
19. Insurance. Rule 710(1) and (2).				
A. Is Michigan's Pollution Liability Insurance amendatory endorsement form provided?				✓
NOTE: Separate endorsements are needed for sudden and nonsudden accidental occurrence policies.				
B. Is the insurer licensed or eligible to transact business in Michigan?				
20. Act 64 Financial test. Rule 709.				
Does the owner operator meet A or B? Rule 709(1).				
A. All of the following:				
1. Two of the following three ratios:				
a. Ratio of liabilities to net worth less than 2.		✓		
b. A ratio of sum of net income plus depreciation depletion and amortization to total liabilities of more than 0.1.		✓		
c. A ratio of current assets to liabilities of more than 1.5. and:		✓		
2. Net working capital and tangible net worth each not less than 6 times the sum of the liability coverage and closure and post-closure cost estimates and the plugging and abandonment costs estimates.		✓		

FINANCIAL RECORD REVIEW CHECKLIST

- | | Violation
Class | Yes | No | N/A |
|--|--------------------|-------------------------------------|----|-------------------------------------|
| 3. Tangible net worth not less than \$10,000,000 and: | | <input checked="" type="checkbox"/> | | |
| 4. Assets in the U.S. not less than 90% of total assets or not less than 6 times the sum of liability coverage and closure and post-closure costs and the plugging & abandonment cost estimates. | | | | <input checked="" type="checkbox"/> |
| 5. Total assets in Michigan not less than \$50,000,000 or not less than 6 times sum of approved closure/post-closure cost estimates of MI facilities (larger of the two). | | <input checked="" type="checkbox"/> | | |

All assets in U.S.

(OR)

B. All of the following:

1. An acceptable Standard and Poors or Moody's Rating for the most recent bond issuance.

Note: Acceptable bond ratings for Standard & Poors include; AAA, AA, A, & BB. The "-" or "+" modifier is acceptable. Acceptable Moody's rating include; Aaa, A, Baa. The numerical modifier of 1, 2 or 3 is acceptable.

2. Tangible net worth not less than 6 times the sum of liability coverage and closure and post-closure cost estimates and the plugging and abandonment cost estimates.

FINANCIAL RECORD REVIEW CHECKLIST

	Violation Class	Yes	No	N/A
3. Tangible net worth not less than \$10,000,000	_____	_____	_____	_____
4. Assets in the U.S. not less than 90% of total assets or not less than 6 times the sum of liability coverage and closure and post-closure costs and the plugging and abandonment cost estimates.	_____	_____	_____	✓
5. Total assets in Michigan at least \$50,000,000 or not less than 6 times sum of approved closure/post closure cost estimates of MI facilities (larger of the two).	_____	_____	_____	✓
C. Is the letter from the chief financial officer worded exactly as specified on the Act 64 financial test form?	_____	✓	_____	_____
D. Is a copy of the independent CPA's report on examining the firm's year end financial statements included?	_____	✓	_____	_____
E. Is a copy of the special report by an independent CPA that states both of the following included?				
1. The Independent CPA compared data from chief financial officer which specifies having been derived from the independent audit-year-end financial statement; and	_____	✓	_____	_____
2. No matters came to their attention indicating that the information				

FINANCIAL RECORD REVIEW CHECKLIST

	Violation Class	Yes	No	N/A
adjustments.	_____	_____	_____	_____
21. Corporate guarantee. Rule 709(10).				
A. Does the guarantor meet the financial test requirements and has all information been provided (use item 20 for review)?	_____	✓	_____	_____
B. Is the guarantee worded exactly as specified in the Act 64 Corporate Guarantee for Liability Coverage?	_____	✓	_____	_____
22. RCRA Financial Test.				
Does the owner operator meet A or B? 264.147(f)				
A. All of the following:				
1. Net working capital and tangible net worth each not less than 6 times the amount of liability coverage.	_____	_____	_____	✓
2. Tangible net worth not less than \$10,000,000 and:	_____	_____	_____	✓
3. Assets in the U.S. not less than 90% of total assets or not less than 6 times the amount of liability coverage.	_____	_____	_____	✓
(OR)				
B. All of the following:				
1. An acceptable Standard and Poors or Moody's Rating for the most recent bond issuance.	_____	_____	_____	✓

Note: Acceptable bond ratings for Standard & Poors include; AAA, AA, A, & BB. The "-" or "+" modifier is

FINANCIAL RECORD REVIEW CHECKLIST

acceptable. Acceptable Moody's rating include; Aaa, A, Baa. The numerical modifier of 1, 2 or 3 is acceptable.

	Violation Class	Yes	No	N/A
2. Tangible net worth not less than 6 times the amount of liability coverage.	_____	_____	_____	✓
3. Tangible net worth not less than \$10,000,000	_____	_____	_____	✓
4. Assets in the U.S. not less than 90% of total assets or not less than 6 times the amount of liability coverage.	_____	_____	_____	✓
C. Is the letter from the chief financial officer worded exactly as specified in 264.151(g), except that the word "Director" replaces the words "Regional Administrator"?	_____	_____	_____	✓
D. Is a copy of the independent CPA's report on examining the firm's year end financial statements included?	_____	_____	_____	✓
E. Is a copy of the special report by an independent CPA that states both of the following included?				
1. The Independent CPA compared data from chief financial officer which specifies having been derived from the independent audit-year-end financial statement; and	_____	_____	_____	✓
2. No matters came to their attention indicating that the information needs				

FINANCIAL RECORD REVIEW CHECKLIST

	Violation Class	Yes	No	N/A
adjustments.	_____	Yes	_____	✓

NOTE: If the RCRA Financial Test is used to also demonstrate financial assurance for closure and post-closure costs in other states, then the same financial criteria as listed in item 20 must be met, with the exception of the \$50 million Michigan asset requirement.

23. RCRA Corporate Guarantee. 264.147(g).

A. Does the guarantor meet the financial test requirements and has all information been provided (use item 20 or 21 for review)?

_____ ✓

B. Is the guarantee worded exactly as specified in 264.151(h), except that the word "Director" replaces the words "Regional Administrator" ?

_____ ✓

Comments on financial mechanisms for liability coverage: _____

Quanex Corporation
1900 West Loop South
Suite 1500
Houston, TX 77027
(713) 961-4600

RECEIVED

FEB 11 1993

January 25, 1993 **WASTE MANAGEMENT DIV.**

Michigan Department of Natural Resources
Waste Management Division
P. O. Box 30038
Ottawa Street Building - South Tower
Lansing, MI 48909
Attn: Alan Howard, Director

RE: EPA Identification Number: MID 082-767-591

Gentlemen:

I am the Chief Financial Officer of Quanex Corporation, 1900 West Loop South, Suite 1500, Houston, Texas 77027. This letter is in support of the firm's use of the financial test to demonstrate financial responsibility for liability coverage and closure and post-closure care as specified in Part 7 of the Act 64 Administrative Rules.

1. This firm is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Subpart H of 40 CFR Part 264:
EPA Identification Number: MID 082-767-591, Michigan Seamless Tube Division, 400 McMunn Street, South Lyon, Michigan 48178.
2. This firm owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Part 7 of the Act 64 Administrative Rules. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: Michigan Seamless Tube Division - Closure and Post Closure \$1,972,505.
3. This firm guarantees, through the corporate guarantee specified in Part 7 of the Act 64 Administrative Rules, closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for closure or post-closure care so guaranteed are shown for each facility: None.
4. In other states where EPA is not administering the financial requirements of Subpart H of 40 CFR Part 264, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Part 264. The current closure and/or post-closure estimates covered by such a test are shown for each facility: EPA Identification Number TXD 000449397, Gulf States Tube Division, Hwy 59 and Scott Road, Rosenberg, Texas 77471. Closure and Post Closure Care \$140,680 and Corrective Action \$891,076.
5. In states where EPA is administering the financial requirements of Subpart H of 40 CFR Part 264, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of the financial test specified in Subpart H of 40 CFR Part 264. The closure and/or post-closure cost estimates

WMD rec'd 2/2/93 LD
ORIG: RSNDA/FIN FILE
XC: CARIS SILVA - LUDIANA
Quanex

Wayne M. Rose
Vice President
Chief Financial Officer

RECEIVED

FEB 2 - 1993

Waste Management
Division

covered by this test are shown for each facility: Michigan Seamless Tube Division - Closure and Post-closure \$1,972,505.

6. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a state through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Part 264 or equivalent or substantially equivalent state mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None.

This firm is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on October 31. The figures for the following items marked with an asterisk (*) are derived (see detail in Attachment) from this firm's independently audited, year-end financial statements for the latest fiscal year, ended October 31, 1992.

ALTERNATIVE I

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above).	<u>\$ 3,004,261</u>
2. Amount of annual aggregate liability coverage to be demonstrated.	<u>\$ 8,000,000</u>
3. Sum of lines 1 and 2	<u>\$ 11,004,261</u>
*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6)	<u>\$ 297,157,000</u>
*5. Tangible net worth	<u>\$ 199,104,000</u>
*6. Net worth	<u>\$ 237,592,000</u>
*7. Current assets	<u>\$ 258,410,000</u>
*8. Current liabilities	<u>\$ 95,955,000</u>
9. Net working capital (line 7 minus line 8).	<u>\$ 162,455,000</u>
*10. The sum of net income plus depreciation, depletion and amortization.	<u>\$ 40,172,000</u>
*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.).	<u>\$ n/a</u>

*12. Total assets in Michigan excluding the value of land used for hazardous waste disposal	<u>\$ 115,437,000</u>	
	<u>YES</u>	<u>NO</u>
13. Is line 5 at least \$10 million?	<u>X</u>	<u> </u>
14. Is line 5 at least 6 times line 3?	<u>X</u>	<u> </u>
15. Is line 9 at least 6 times line 3?	<u>X</u>	<u> </u>
*16. Are at least 90% of assets located in the U.S.? If not, complete line 16.	<u>X</u>	<u> </u>
17. Is line 11 at least 6 times line 3?	<u>n/a</u>	<u> </u>
18. Is line 4 divided by line 6 less than 2.0?	<u>X</u>	<u> </u>
19. Is line 10 divided by line 4 greater than 0.1?	<u>X</u>	<u> </u>
20. Is line 7 divided by line 8 greater than 1.5?	<u>X</u>	<u> </u>
*21. Is line 12 at least \$50 million?	<u>X</u>	<u> </u>
22. Is line 12 at least 6 times line 1?	<u>X</u>	<u> </u>

I hereby certify that the wording of this letter is identical to the wording in the model letter specified by the Director for the financial test related to closure/post-closure care as well as liability insurance coverage, as such letter was specified on the date shown immediately below.

Sincerely,

Wayne M. Rose

Wayne M. Rose
Vice President
Chief Financial Officer

WMR/jb
Attachment

QUANEX CORPORATION AND SUBSIDIARIES
CONSOLIDATED FINANCIAL DATA AT 10/31/92
(In Thousands)

	<u>Current Assets</u>	<u>Current Liabilities</u>	<u>Net Working Capital</u>
Per Annual Report to Shareholders 10/31/92	\$250,410	\$ 95,955	\$154,455
Replacement Cost > LIFO Value Inventory (1)	<u>8,000</u>	<u>-</u>	<u>8,000</u>
As adjusted 10/31/92	<u>\$258,410</u>	<u>\$ 95,955</u>	<u>\$162,455</u>

(1) With respect to inventories valued using the LIFO method, replacement cost exceeds the LIFO value by approximately \$8,000 at 10/31/92.

Tangible Net Worth at 10/31/92 consists of:

Stockholders' equity	\$237,592
Less:	
Goodwill, net	34,912
Other intangibles, net	<u>3,576</u>
Tangible Net Worth	<u>\$199,104</u>
Total Liabilities:	
Per Annual Report to Shareholders at 10/31/92	<u>\$297,157</u>
Net Income (Loss)	\$(18,913)
Cumulative effect of accounting change for post-retirement welfare benefits, net of related income tax benefit	25,108
Depreciation, depletion & amortization	26,777
Facilities realignment charge	<u>7,200</u>
As adjusted	<u>\$ 40,172</u>
Total Assets in Michigan at 10/31/92 consists of:	
Michigan Seamless Tube Division	\$49,315
Tube Group Office	1,584
MacSteel Michigan Division	64,466
Bar Group Office	<u>72</u>
	<u>\$115,437</u>



January 25, 1993

Board of Directors
Quanex Corporation
Houston Texas

We have audited the consolidated financial statements of Quanex Corporation (the "Company") and subsidiaries as of and for the year ended October 31, 1992 and have issued our report thereon dated November 24, 1992. We have also read the attached letter dated January 25, 1993 from Mr. Wayne M. Rose, Vice President and Chief Financial Officer of the Company, to the Michigan Department of Natural Resources, Waste Management Division, and have performed the procedures enumerated below with respect to the financial data specified in items 4 through 12 on pages 2 and 3 of such letter. The procedures we performed are summarized as follows:

- a. We compared the financial data specified in items 4 through 12 on pages 2 and 3 of such letter to the corresponding amounts in the attachment to such letter.
- b. We compared the amounts of "Current Assets" and "Current Liabilities" reflected in the caption "Per Annual Report to Shareholders 10/31/92," "Stockholders' Equity," "Total Liabilities: Per Annual Report to Shareholders at 10/31/92," "Net Income" and "Depreciation, Depletion and Amortization" in the attachment to the corresponding amounts as set forth in the consolidated financial statements referred to above.
- c. We compared the amount of "Current Assets" reflected in the caption "Replacement Cost > LIFO Value Inventory" in the attachment to the corresponding amount as set forth in Note 4 to the consolidated financial statements referred to above.
- d. We compared the amounts of "Goodwill, Net," "Other Intangibles, Net" and the amount of "Total Assets in Michigan at 10/31/92" corresponding to the captions "Michigan Seamless Tube Division," "Tube Group Office," "MacSteel Michigan Division" and "Bar Group Office" in the attachment to the corresponding amounts in schedules prepared by the Company's employees. We also compared the components of each amount as set forth in the schedules to the corresponding amounts in the Company's financial records.
- e. We checked for the clerical accuracy of all computations in the attachment and the schedules referred to in d.

In connection with the procedures referred to above, no matters came to our attention that caused us to believe that the financial data specified in items 4 through 12 on pages 2 and 3 of the letter referred to above has not been derived from the consolidated financial statements and financial records of the Company.

Deloitte & Touche

Quanex Corp., Mich. Seamless Tube Div.
 400 Mc Munn St.
 South Lyon, MI 48178 · MID 082767591

FINANCIAL CAPABILITY

June 18th, 1991

Part 7 R299.9701 to R299.9710

Note: Facilities not yet issued an operating license in accordance with Part 5 of these rules shall comply with Financial capability, Part 7, of these rules, by August 14, 1989. Rule 701.(2) Federal and State facilities are exempt from financial capability requirements.

Cost estimate for Closure and Post Closure Care Rule 702(1):

40 CFR 264.142 and 264.144

	<u>Violation</u> <u>Class</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>
1. Is the written closure cost estimate available and on site? 264.142(d) Note: Indicate the amount:	_____	✓	_____	_____
	\$ 1,859,275			
2. Is the written post closure cost estimate available and on site 264.144(d) (Required only for disposal surface impoundment, land treatment, landfill unit or waste pile. Note: Indicate the amount:	_____	✓	_____	_____
3. a) Have any revisions been made to the closure/post closure plan which increase the cost of closure/post closure? 264.142(c) and 264.144(c).	_____	✓	_____	_____
b) If yes, were the cost estimate(s) revised to reflect this increase within 30 days of approval to modify closure/post closure plan?	_____	✓	_____	_____

	Violation Class	Yes	No	N/A
4. Have the closure/post closure cost estimates been adjusted for inflation by either recalculating cost estimates or using an inflation factor derived from the most recent implicit price deflation? 264.142(b) and 264.144(b)	_____	<u>✓</u>	_____	_____
a) Have closure/post closure cost estimates been revised within 30 days after firm's fiscal year (for facilities using financial test or corporate guarantee)?	_____	<u>✓</u>	_____	_____
b) For all other financial instruments, have closure/post closure cost estimates been revised within 60 days prior to anniversary date of establishment?	_____	_____	_____	<u>✓</u>
5. Have closure/post closure cost estimates for facilities using financial test or corporate guarantee been revised within 30 days after close of firms fiscal year? 264.142(b) and 264.144(b)	_____	<u>✓</u>	_____	_____
6. For all other financial instruments have closure/post closure cost estimates for facilities been revised within 60 days of their anniversary date of establishment? 264.142(b) and 264.144(b)	_____	_____	_____	<u>✓</u>
7. Have the closure/post closure cost estimates been adjusted by <u>either</u> recalculating cost estimates or using the most recent appropriate inflation factor? 264.142(b) 264.144(b)	_____	<u>✓</u>	_____	_____

Comments: _____

Financial Assurance for Closure/Post Closure Care Rule 703

8. Indicate which of the following financial mechanism(s) are used to establish financial assurance for closure/post closure care Rule 703(1). Also, indicate if its for closure/post closure care Rule 7083 (1).

<input type="checkbox"/>	Trust fund Rule 704
<input type="checkbox"/>	Surety bond guaranteeing performance of closure/post closure care. Rule 705
<input type="checkbox"/>	Letter of Credit, Rule 706.
<input type="checkbox"/>	Certificate of Deposit or Time Deposit account. Rule 707
<input type="checkbox"/>	Closure post/closure insurance Rule 708
<input checked="" type="checkbox"/>	Financial test and corporate guarantee for closure/post closure Rule 709.

Violation				
Class	Yes	No	N/A	

9. If multiple mechanisms are used are they limited to trusts, surety bonds, letters of credit certificates of deposits and insurance? Rule 703(2)

_____ ☒

10. Are financial assurance mechanisms used for more than one facility? Rule 703(3). If so, indicate their names and ID number.

_____ ☒

Comments: (10) TXD 000 449 397 - Gulf States Tube Division
Hwy 59 and Scott Rd.
Rosenberg, TX. 77471

FINANCIAL MECHANISMS

11. Trust fund. Rule 704
 A. Is trust agreement on DNR approved form? Rule 704(1)

_____ ☒

		Violation Class	Yes	No	N/A
B.	Is trust funded at 100% closure/post closure cost. Rule 704(2).	_____	_____	_____	<input checked="" type="checkbox"/>
	If no, indicate amount.	_____			
12.	Surety Bond Guarantee. Rule 705				
A.	Is bond executed on DNR approved form? Rule 705(1)	_____	_____	_____	<input checked="" type="checkbox"/>
12.	B. Is sum of bond equal or greater than closure/post closure costs? Rule 705 (4). If no, indicate amount.	_____	_____	_____	<input checked="" type="checkbox"/>
13.	Letter of Credit Rule 706				
A.	Is letter of credit executed on a form approved by Director. Rule 706(1)	_____	_____	_____	<input checked="" type="checkbox"/>
B.	Is letter of credit accompanied by a letter from owner/operator providing the following: EPA ID number; name and address of facility; amount of funds assured for closure/post closure? Rule 706(3)	_____	_____	_____	<input checked="" type="checkbox"/>
C.	Is letter of credit equal to or greater than closure/post closure costs? Rule 706(5) If no, indicate amount.	_____	_____	_____	<input checked="" type="checkbox"/>
14.	Certificate of deposit/time deposit. Rule 707				
A.	Is certificate or account in only name of the director? Rule 707(2)	_____	_____	_____	<input checked="" type="checkbox"/>

		Violation Class	Yes	No	N/A
B.	Is there an agreement which identifies reasons which director may cash the certificate or account on a DNR approved form? Rule 707(3)	_____	_____	_____	✓
C.	Is certificate for amount equal to closure/post closure cost estimates. Rule 707(4).	_____	_____	_____	✓
If no, indicate amount.		_____			
15. Closure/post closure insurance. Rule 708.					
A.	Does certificate use wording approved by director; or	_____	_____	_____	✓
B.	A certified true and complete copy of the policy. Rule 708(1)	_____	_____	_____	✓
C.	Is the closure/post closure insurance policy issued for face amount at least equal to current closure/post closure cost estimate? Rule 708(4).	_____	_____	_____	✓
If no, indicate amount.		_____			
16. If using multiple assurance mechanisms, do they equal or exceed closure/post closure cost estimates? Rule 703(2).					
Indicate total.		_____			

Comments: _____

Violation
Class

Yes

No

N/A

17. Financial test and corporate guarantee, Rule 709. For financial test does the owner operator meet A or B? Rule 709(1)

A. All of the following:

1. Two of the following three ratios:

a. Ratio of liabilities to net worth less than 2. _____

b. A ratio of sum of net income plus depreciation depletion and amortization to total liabilities of more than 0.1. _____

c. A ratio of current assets to liabilities of more than 1.5. and: _____

2. Net working capital and tangible net worth each not less than 6 times the sum of closure and post/closure cost estimates. _____

3. Tangible net worth not less than \$10,000,000 and: _____

4. Assets in the U.S. not less than 90% of total assets or not less than 6 times the closure/post closure costs and: _____

5. Total assets in Michigan not less than \$50,000,000 or not less than 6 times sum of approved closure/post closure cost estimates (larger of the two). _____

✓

✓

✓

✓

✓

All assets in U.S.

✓

✓

Comments: _____

or all of the following:

	Violation Class	Yes	No	N/A
B. 1. An acceptable Standard and Ppors or Moody's Rating for the most recent bond issuance.	_____	_____	_____	✓
2. Tangible net worth not less than 6 times the sum of closure/post closure cost estimates.	_____	✓	_____	_____
3. Tangible net worth not less than \$10,000,000	_____	✓	_____	_____
4. Assets in the U.S. not less than 90% of total assets or not less than 6 times closure/post closure costs.	_____	All assets in U.S.		✓
5. Total assets in Michigan at least \$50,000,000 or not less than 6 times sum of approved closure/post closure cost estimates (or larger of the two)	_____	✓	_____	_____

Comments: _____

18. For financial test and corporate
guarantee has the owner operator:
Rule 709(3)

A. Have a letter signed by chief financial officer and worded as specified by director.	_____	✓	_____	_____
B. A copy of independent CPA report examining owner operators financial statement.	_____	✓	_____	_____
C. A copy of special report by independent CPA stating:	_____	_____	_____	_____

		Violation Class	Yes	No	N/A
1.	The Independent CPA compared data from chief financial officer which specifies having derived from the independent audit-year-end financial statement; and	_____	✓ _____	_____	_____
2.	No matters came to their attention indicating the information needs adjustments.	_____	✓ _____	_____	_____
19.	Corporate guarantee. Rule 709.10 Does owner meet requirements of 17 and 18 above; and:				
A.	Use wording identical to wording provided by Director.	_____	_____	_____	✓ _____
B.	Does terms of corporate guarantee include:				
1.	Appropriate provisions of owner/operator facts to perform final closure	_____	_____	_____	✓ _____
2.	Appropriate cancellation provisions.	_____	_____	_____	✓ _____
3.	Alternate financial assurance provisions.	_____	_____	_____	✓ _____

Comments: _____

Liability Requirements Rule 710

(Note: When reviewing insurance, do not include amount of deductible coverage)

19.	Does owner/operator maintain liability coverage for sudden and accidental occurrences not less than \$1,000,000 per occurrence with an annual aggregate not less than \$2,000,000? Rule 710(1)	_____	_____	_____	✓ _____
-----	---	-------	-------	-------	------------

	Violation Class	Yes	No	N/A
20. For surface impoundment landfill or land treatment does owner/operator maintain liability coverage for sudden accidental occurrences not less than \$3,000,000 per occurrence with an annual aggregate of not less than \$6,000,000? Rule 701(2)	_____	_____	_____	✓ _____
21. For the required insurance policy(s) is each policy amended by attachment of an endorsement on a form provided by the Director? and	_____	_____	_____	✓ _____
22. Is insurer licensed to transact business in Michigan?	_____	_____	_____	✓ _____

Comments: Quawer Corp, Michn Seamless Tube Div
has used the Financial Test to satisfy insurance
requirements.

Quanex Corporation
1900 West Loop South
Suite 1500
Houston, TX 77027
3) 961-4600



EPA

January 25, 1991

Michigan Department of Natural Resources
Waste Management Division
P. O. Box 30038
Ottawa Street Building - South Tower
Lansing, MI 48909
Attn: Alan Howard, Director

RE: EPA Identification Number: MID 082-767-591

Gentlemen:

I am the Chief Financial Officer of Quanex Corporation, 1900 West Loop South, Suite 1500, Houston, Texas 77027. This letter is in support of the firm's use of the financial test to demonstrate financial responsibility for liability coverage and closure and post-closure care as specified in Part 7 of the Act 64 Administrative Rules.

1. This firm is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Subpart H of 40 CFR Part 264:
EPA Identification Number: MID 082-767-591, Michigan Seamless Tube Division, 400 McMunn Street, South Lyon, Michigan 48178.
2. This firm owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Part 7 of the Act 64 Administrative Rules. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: Michigan Seamless Tube Division - Closure and Post Closure \$1,859,275.
3. This firm guarantees, through the corporate guarantee specified in Part 7 of the Act 64 Administrative Rules, closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for closure or post-closure care so guaranteed are shown for each facility: None.
4. In other states where EPA is not administering the financial requirements of Subpart H of 40 CFR Part 264, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Part 264. The current closure and/or post-closure estimates covered by such a test are shown for each facility: EPA Identification Number TXD 000449397, Gulf States Tube Division, Hwy 59 and Scott Road, Rosenberg, Texas 77471. Closure and Post Closure Care \$1,082,762 and Corrective Action \$839,924.
5. In states where EPA is administering the financial requirements of Subpart H of 40 CFR Part 264, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of the financial test specified in Subpart H of 40 CFR Part 264. The closure and/or post-closure cost estimates

covered by this test are shown for each facility: Michigan Seamless Tube Division - Closure and Post-closure \$1,859,275.

6. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a state through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Part 264 or equivalent or substantially equivalent state mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None.

This firm is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on October 31. The figures for the following items marked with an asterisk (*) are derived (see detail in Attachment) from this firm's independently audited, year-end financial statements for the latest fiscal year, ended October 31, 1990.

ALTERNATIVE I

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above).	<u>\$ 3,781,961</u>
2. Amount of annual aggregate liability coverage to be demonstrated.	<u>\$ 8,000,000</u>
3. Sum of lines 1 and 2	<u>\$ 11,781,961</u>
*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6)	<u>\$ 271,554,000</u>
*5. Tangible net worth	<u>\$ 142,635,000</u>
*6. Net worth	<u>\$ 181,430,000</u>
*7. Current assets	<u>\$ 184,067,000</u>
*8. Current liabilities	<u>\$ 97,402,000</u>
9. Net working capital (line 7 minus line 8).	<u>\$ 86,665,000</u>
*10. The sum of net income plus depreciation, depletion and amortization.	<u>\$ 50,940,000</u>
*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.).	<u>\$ n/a</u>

- *12. Total assets in Michigan excluding the value of
land used for hazardous waste disposal

\$ 109,153,000

	<u>YES</u>	<u>NO</u>
13. Is line 5 at least \$10 million?	<u>X</u>	<u> </u>
14. Is line 5 at least 6 times line 3?	<u>X</u>	<u> </u>
15. Is line 9 at least 6 times line 3?	<u>X</u>	<u> </u>
*16. Are at least 90% of assets located in the U.S.? If not, complete line 16.	<u>X</u>	<u> </u>
17. Is line 11 at least 6 times line 3?	<u>n/a</u>	<u> </u>
18. Is line 4 divided by line 6 less than 2.0?	<u>X</u>	<u> </u>
19. Is line 10 divided by line 4 greater than 0.1?	<u>X</u>	<u> </u>
20. Is line 7 divided by line 8 greater than 1.5?	<u>X</u>	<u> </u>
*21. Is line 12 at least \$50 million?	<u>X</u>	<u> </u>
22. Is line 12 at least 6 times line 1?	<u>X</u>	<u> </u>

I hereby certify that the wording of this letter is identical to the wording in the model letter specified by the Director for the financial test related to closure/post-closure care as well as liability insurance coverage, as such letter was specified on the date shown immediately below.

Sincerely,

Wayne M. Rose

Wayne M. Rose
Vice President
Chief Financial Officer

WMR/jb
Attachment

QUANEX CORPORATION AND SUBSIDIARIES
CONSOLIDATED FINANCIAL DATA AT 10/31/90
(In Thousands)

	<u>Current Assets</u>	<u>Current Liabilities</u>	<u>Net Working Capital</u>
Per Annual Report to Shareholders 10/31/90	\$169,986	\$ 95,799	\$ 74,187
Net Working Capital included in Assets Held for Disposition (1)	50	697	(647)
(2)	31	906	(875)
Replacement Cost > LIFO Value Inventory (3)	<u>14,000</u>	<u>-</u>	<u>14,000</u>
As adjusted 10/31/90	<u>\$184,067</u>	<u>\$ 97,402</u>	<u>\$ 86,665</u>

- (1) Oil Country Tubular Division-Houston ceased operations in the fourth quarter of 1984. At 10/31/90 net working capital of \$(647) is included in Assets Held for Disposition (non-current asset).
- (2) Atlantic Tube Division ceased operations in the fourth quarter of 1986. At 10/31/90 net working capital of \$(875) is included in Assets Held for Disposition (non-current asset).
- (3) With respect to inventories valued using the LIFO method, replacement cost exceeds the LIFO value by approximately \$14,000 at 10/31/90.

Tangible Net Worth at 10/31/90 consists of:

Stockholders' equity	\$181,430
Less:	
Goodwill, net	36,828
Other intangibles, net	<u>1,967</u>
Tangible Net Worth	<u>\$142,635</u>
Total Liabilities:	
Per Annual Report to Shareholders at 10/31/90	\$269,951
Add:	
Current Liabilities classified as Assets Held for Disposition	<u>1,603</u>
As adjusted	<u>\$271,554</u>
Net Income	\$ 28,020
Depreciation, depletion & amortization	<u>22,920</u>
	<u>\$ 50,940</u>
	<u>\$ 46,692</u>
Total Assets in Michigan at 10/31/90 consists of:	
Michigan Seamless Tube Division	\$51,510
Tube Group Office	1,751
MacSteel Michigan Division	55,835
Bar Group Office	<u>57</u>
	<u>\$109,153</u>

Deloitte & Touche



January 25, 1991

Suite 2300
333 Clay Street
Houston, Texas 77002-4196
Telephone: (713) 750-4100

Facsimile: (713) 750-4101
Telex: 7607018

Board of Directors
Quanex Corporation
Houston, Texas

We have audited the consolidated financial statements of Quanex Corporation ("the Company") and subsidiaries as of and for the year ended October 31, 1990 and have issued our report thereon dated November 26, 1990. We have also read the attached letter dated January 25, 1991 from Mr. Wayne M. Rose, Vice President and Chief Financial Officer of the Company, to the Michigan Department of Natural Resources, Waste Management Division, and have performed the procedures enumerated below with respect to the financial data specified in items 4 through 12 on pages 2 and 3 of such letter. The procedures we performed are summarized as follows:

- a. We compared the financial data specified in items 4 through 12 on pages 2 and 3 of such letter to the corresponding amounts in the Attachment to such letter.
- b. We compared the amounts of "Current Assets" and "Current Liabilities" reflected in the caption "Per Annual Report to Shareholders 10/31/90", "Stockholders' equity", "Total Liabilities: Per Annual Report to Shareholders at 10/31/90", "Net Income" and "Depreciation, depletion and amortization" in the Attachment to the corresponding amounts as set forth in the consolidated financial statements referred to above.
- c. We compared the amount of "Current Assets" reflected in the caption "Replacement Cost > LIFO Value Inventory" in the Attachment to the corresponding amount as set forth in Note 5 to the consolidated financial statements referred to above.
- d. We compared the amounts of "Current Assets" and "Current Liabilities" reflected in the caption "Net Working Capital included in Assets Held for Disposition," "Goodwill," "Other intangibles, net" and the amounts of "Total Assets in Michigan at 10/31/90" corresponding to the captions "Michigan Seamless Tube Division," "Tube Group Office," "MacSteel Michigan Division" and "Bar Group Office" in the Attachment to the corresponding amounts in schedules prepared by the Company's employees. We also compared the components of each amount as set forth in the schedules to the corresponding amounts in the Company's financial records.

Quanex Corporation
January 25, 1991
Page 2

- e. We checked for the clerical accuracy of all computations in the Attachment and the schedules referred to in d.

In connection with the procedures referred to above, no matters came to our attention that caused us to believe that the financial data specified in items 4 through 12 on pages 2 and 3 of the letter referred to above has not been derived from the consolidated financial statements and financial records of the Company.

Deloitte & Touche

EPA

NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON
MARLENE J. FLUHARTY
GORDON E. GUYER
KERRY KAMMER
ELLWOOD A. MATTSON
O. STEWART MYERS
RAYMOND POUPORE

JOHN ENGLER ~~XXXXXXXXXXXX~~ Governor

DEPARTMENT OF NATURAL RESOURCES

Delbert Rector, Director

SOUTHEAST MICHIGAN DISTRICT HEADQUARTERS

Waste Management Division

38980 Seven Mile Rd.

Livonia, Michigan 48152

June 17, 1991

Gary L. Hellner
Assistant Treasurer
Quanex Corporation
1900 West Loop South, Suite 1500
Houston, TX 77027

RE: MID 082767591
Quanex Corp., Michigan Seamless Tube Div.
Financial Review

Dear Mr. Hellner:

Staff of the Michigan Department of Natural Resources (MDNR) conducted a financial review for your hazardous waste facility located at 400 McMunn St., South Lyon, Michigan 48178. Financial assurance and financial responsibility for closure/post-closure and liability coverage is required by the Michigan Hazardous Waste Management Act, Public Act 64 of 1979, as amended, MCLA 299.501 et seq (Act 64) specifically, Part 7, R 299.9701 to R 299.9711. RCRA interim status and permitted facilities had until August 14, 1989, to comply with the Part 7 Rules.

As a result of the financial review, staff of the MDNR have determined that your facility is in compliance with the requirements of Act 64, Part 7 Rules, as addressed in the enclosed inspection form.

If you have any questions feel free to contact me.

Sincerely,

Christopher L. Silva
Environmental Quality Analyst
Waste Management Division
Phone: 313-953-0241 or 953-1457

CS/cs
Enclosures
cc: B. Okwumabua
U.S. EPA, Region V



STATE OF MICHIGAN



NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON
MARLENE R. BUCHHEIT
GORDON E. JOYER
KERRY KAMMER
ELLWOOD A. MATTSON
O. STEWART MYERS
RAYMOND POUPORE

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

DAVID F. HALES, Director

S.E. MICHIGAN DISTRICT HEADQUARTERS
Waste Management Division
38980 Seven Mile Road
Livonia, MI 48152

September 17, 1990

Gary L. Hellner
Assistant Treasurer
Quanex Corporation
1900 West Loop South, Suite 1500
Houston, TX 77027

RE: MID 082767591

Dear Mr. Hellner:

This letter is to acknowledge receipt of your letter dated September 12, 1990 indicating your compliance program for financial mechanism deficiencies cited during my review on August 24, 1990. I consider your response acceptable at this time.

Thank you for your cooperation. If you have any questions, please contact me at (313) 953-1457 or (313) 953-0241.

Sincerely,

Christopher L. Silva
Environmental Quality Analyst

Lynne K. King
Environmental Quality Analyst

cs/CS

cc: B. Okwumabua
U.S. EPA, Region V
Lynne K. King
Donald F. Comfort

File as a: \QXFin2

Follow-up
reinspection
on 9-16-90

Qarnex Corp. Michigan Seamless Tube Division
400 Mc Mann, South Lyon, MI 48178

FINANCIAL CAPABILITY MID 082767591

Part 7 R299.9701 to R299.9710

Note: Facilities not yet issued an operating license in accordance with Part 5 of these rules shall comply with Financial capability, Part 7, of these rules, by August 14, 1989. Rule 701.(2) Federal and State facilities are exempt from financial capability requirements.

Cost estimate for Closure and Post Closure Care Rule 702(1):

40 CFR 264.142 and 264.144

	Violation Class	Yes	No	N/A
1. Is the written closure cost estimate available and on site? 264.142(d) Note: Indicate the amount:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		\$1,797,815 ⁰⁰		
2. Is the written post closure cost estimate available and on site 264.144(d) (Required only for disposal surface impoundment, land treatment, landfill unit or waste pile. Note: Indicate the amount:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		\$1,797,815 ⁰⁰		
3. a) Have any revisions been made to the closure/post closure plan which increase the cost of closure/post closure? 264.142(c) and 264.144(c).		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) If yes, were the cost estimate(s) revised to reflect this increase within 30 days of approval to modify closure/post closure plan?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

9-28-89

	Violation Class	Yes	No	N/A
4. Have the closure/post closure cost estimates been adjusted for inflation by either recalculating cost estimates or using an inflation factor derived from the most recent implicit price deflation? 264.142(b) and 264.144(b)	_____	<u>✓</u>	_____	_____
a) Have closure/post closure cost estimates been revised within 30 days after firm's fiscal year (for facilities using financial test or corporate guarantee)?	_____	_____	_____	<u>✓</u>
b) For all other financial instruments, have closure/post closure cost estimates been revised within 60 days prior to anniversary date of establishment?	_____	_____	_____	<u>✓</u>
5. Have closure/post closure cost estimates for facilities using financial test or corporate guarantee been revised within 30 days after close of firms fiscal year? 264.142(b) and 264.144(b)	_____	_____	_____	<u>✓</u>
6. For all other financial instruments have closure/post closure cost estimates for facilities been revised within 60 days of their anniversary date of establishment? 264.142(b) and 264.144(b)	_____	_____	_____	<u>✓</u>
7. Have the closure/post closure cost estimates been adjusted by <u>either</u> recalculating cost estimates or using the most recent appropriate inflation factor? 264.142(b) 264.144(b)	_____	<u>✓</u>	_____	_____

Comments: 1a) b); 5; 6; Firm is having costs re-evaluated again

Financial Assurance for Closure/Post Closure Care Rule 703

8. Indicate which of the following financial mechanism(s) are used to establish financial assurance for closure/post closure care Rule 703(1). Also, indicate if its for closure/post closure care Rule 7083 (1).

_____ Trust fund Rule 704

_____ Surety bond guaranteeing performance of closure/post closure care. Rule 705

_____ Letter of Credit, Rule 706.

_____ Certificate of Deposit or Time Deposit account. Rule 707

_____ Closure post/closure insurance Rule 708

X _____ Financial test and corporate guarantee for closure/post closure Rule 709.

Violation

Class Yes No N/A

9. If multiple mechanisms are used are they limited to trusts, surety bonds, letters of credit certificates of deposits and insurance? Rule 703(2)
10. Are financial assurance mechanisms used for more than one facility? Rule 703(3). If so, indicate their names and ID number.

_____ ✓

_____ ✓

Comments:

IND 077-045-680 - LaSalle Steel Co., Fluid Power Div.
TXD 000449397 1045 E. Main St.
Gulf States Tube Division
 Hwy 59 and Scott Rd. Griffith, Indiana 46319
Rosenberg, TX 77471

FINANCIAL MECHANISMS

11. Trust fund. Rule 704
- A. Is trust agreement on DNR approved form? Rule 704(1)

_____ ✓

		Violation Class	Yes	No	N/A
B.	Is trust funded at 100% closure/post closure cost. Rule 704(2).	_____	_____	_____	✓
	If no, indicate amount.	_____			
12.	Surety Bond Guarantee. Rule 705				
A.	Is bond executed on DNR approved form? Rule 705(1)	_____	_____	_____	✓
12.	B. Is sum of bond equal or greater than closure/post closure costs? Rule 705 (4). If no, indicate amount.	_____	_____	_____	✓
13.	Letter of Credit Rule 706				
A.	Is letter of credit executed on a form approved by Director. Rule 706(1)	_____	_____	_____	✓
B.	Is letter of credit accompanied by a letter from owner/operator providing the following: EPA ID number; name and address of facility; amount of funds assured for closure/post closure? Rule 706(3)	_____	_____	_____	✓
C.	Is letter of credit equal to or greater than closure/post closure costs? Rule 706(5) If no, indicate amount.	_____	_____	_____	✓
14.	Certificate of deposit/time deposit. Rule 707				
A.	Is certificate or account in only name of the director? Rule 707(2)	_____	_____	_____	✓

		Violation Class	Yes	No	N/A
B.	Is there an agreement which identifies reasons which director may cash the certificate or account on a DNR approved form? Rule 707(3)	_____	_____	_____	✓
C.	Is certificate for amount equal to closure/post closure cost estimates. Rule 707(4).	_____	_____	_____	✓
	If no, indicate amount.	_____			
15.	Closure/post closure insurance. Rule 708.				
A.	Does certificate use wording approved by director; or	_____	_____	_____	✓
B.	A certified true and complete copy of the policy. Rule 708(1)	_____	_____	_____	✓
C.	Is the closure/post closure insurance policy issued for face amount at least equal to current closure/post closure cost estimate? Rule 708(4).	_____	_____	_____	✓
	If no, indicate amount.	_____			
16.	If using multiple assurance mechanisms, do they equal or exceed closure/post closure cost estimates? Rule 703(2).	_____	_____	_____	✓
	Indicate total.	_____			
Comments: _____					

	Violation Class	Yes	No	N/A
17. Financial test and corporate guarantee, Rule 709. For financial test does the owner operator meet A or B? Rule 709(1)				

A. All of the following:

1. Two of the following three ratios:

a. Ratio of liabilities to net worth less than 2. _____ ✓ _____

b. A ratio of sum of net income plus depreciation depletion and amortization to total liabilities of more than 0.1. _____ ✓ _____

c. A ratio of current assets to liabilities of more than 1.5. and: _____ ✓ _____

2. Net working capital and tangible net worth each not less than 6 times the sum of closure and post/closure cost estimates. _____ ✓ _____

3. Tangible net worth not less than \$10,000,000 and: _____ ✓ _____

4. Assets in the U.S. not less than 90% of total assets or not less than 6 times the closure/post closure costs and: _____ _____ ✓

5. Total assets in Michigan not less than \$50,000,000 or not less than 6 times sum of approved closure/post closure cost estimates (larger of the two). _____ ✓ _____

Comments: So Qvanex did not include depreciation in their original estimate and has since sent me a revised financial review statement showing this fact.

or all of the following:

		Violation			
		Class	Yes	No	N/A
B.	1. An acceptable Standard and Ppoors or Moody's Rating for the most recent bond issuance.	—	—	—	X
	2. Tangible net worth not less than 6 times the sum of closure/post closure cost estimates.	—	X	—	—
	3. Tangible net worth not less than \$10,000,000	—	X	—	—
	4. Assets in the U.S. not less than 90% of total assets or not less than 6 times closure/post closure costs.	—	—	—	X
	5. Total assets in Michigan at least \$50,000,000 or not less than 6 times sum of approved closure/post closure cost estimates (or larger of the two)	—	X	—	—

Comments: 5.) See comments on page 6 of this review

18. For financial test and corporate guarantee has the owner operator:
Rule 709(3)

A. Have a letter signed by chief financial officer and worded as specified by director.

B. A copy of independent CPA report examining owner operators financial statement.

C. A copy of special report by independent CPA stating:

	Violation Class	Yes	No	N/A
1. The Independent CPA compared data from chief financial officer which specifies having derived from the independent audit-year-end financial statement; and	—	X	—	—
2. No matters came to their attention indicating the information needs adjustments.	—	X	—	—
19. Corporate guarantee. Rule 709.10 Does owner meet requirements of 17 and 18 above; and:				
A. Use wording identical to wording provided by Director.	—	—	—	X
B. Does terms of corporate guarantee include:				
1. Appropriate provisions of owner/operator facts to perform final closure	—	—	—	X
2. Appropriate cancellation provisions.	—	—	—	X
3. Alternate financial assurance provisions.	—	—	—	X

Comments: _____

Liability Requirements Rule 710
 (Note: When reviewing insurance, do not include amount of deductible coverage)

19. Does owner/operator maintain liability coverage for sudden and accidental occurrences not less than \$1,000,000 per occurrence with an annual aggregate not less than \$2,000,000? Rule 710(1)	—	—	—	X
---	---	---	---	---

	Violation Class	Yes	No	N/A
20. For surface impoundment landfill or land treatment does owner/operator maintain liability coverage for sudden accidental occurrences not less than \$3,000,000 per occurrence with an annual aggregate of not less than \$6,000,000? Rule 701(2)	_____	_____	_____	<u>X</u>
21. For the required insurance policy(s) is each policy amended by attachment of an endorsement on a form provided by the Director? and	_____	_____	_____	<u>X</u>
22. Is insurer licensed to transact business in Michigan?	_____	_____	_____	<u>X</u>

Comments: Phanex Corp., Michigan Seamless Tube Division, has
used the financial test to satisfy Liability insurance
requirements

STATE OF MICHIGAN



NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON
MARLENE J. FLUHARTY
GORDON E. GUYER
KERRY KAMMER
ELLWOOD A. MATTSON
O. STEWART MYERS
RAYMOND POUPORE

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

DAVID F. HALES, Director

S.E. MICHIGAN DISTRICT HEADQUARTERS
Waste Management Division
38980 Seven Mile Road
Livonia, MI 48152
August 24, 1990

Wayne M. Rose, Vice President
Chief Financial Officer
Quanex Corporation
1900 West Loop South, Suite 1500
Houston, Texas 77027

RE: EPA Identification Number: MID 082-767-591

Dear Mr. Rose:

A financial assurance review has been performed on the mechanisms established for compliance with the closure costs and insurance requirements of Subtitle C of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended; and Michigan's Hazardous Waste Management Act, Act 64 of 1979, as amended.

As a result of that review, the following violations were noted:

1. The total Michigan assets of \$39,451,000 does not meet the minimum amount of \$50,000,000 as stated in R299.9709(1)(C)(v), Act 64, of 1979, as amended. The other mechanisms listed in Part 7, Financial Capability, Act 64 of 1979, as amended, may be used to insure closure and post-closure costs.

We request your response by September 7, 1990 demonstrating these corrections to our office address listed above. Copies of these documents describing the other mechanisms are available upon your request. If you have any questions, please contact me at (313) 953-0241.

Sincerely,

Christopher L. Silva
Environmental Quality Analyst

Lynne K. King
Environmental Quality Analyst

cs/CS

cc: Donald Comfort
B. Okwumabua

U.S. EPA, Region V

Granex Corp.
Michigan Seamless Tube Division
400 Mc Mann Street, South Lyon, MI 48178

FINANCIAL CAPABILITY

Part 7 R299.9701 to R299.9710

Note: Facilities not yet issued an operating license in accordance with Part 5 of these rules shall comply with Financial capability, Part 7, of these rules, by August 14, 1989. Rule 701.(2) Federal and State facilities are exempt from financial capability requirements.

Cost estimate for Closure and Post Closure Care Rule 702(1):

40 CFR 264.142 and 264.144

	Violation Class	Yes	No	N/A
1. Is the written closure cost estimate available and on site? 264.142(d) Note: Indicate the amount:		<u>✓</u>		
		<u>\$1,797,815.⁰⁰</u>		
2. Is the written post closure cost estimate available and on site 264.144(d) (Required only for disposal surface impoundment, land treatment, landfill unit or waste pile. Note: Indicate the amount:		<u>✓</u>		
		<u>\$1,797,815.⁰⁰</u>		
3. a) Have any revisions been made to the closure/post closure plan which increase the cost of closure/post closure? 264.142(c) and 264.144(c).			<u>✓</u>	
b) If yes, were the cost estimate(s) revised to reflect this increase within 30 days of approval to modify closure/post closure plan?				<u>✓</u>

9-28-89

	Violation Class	Yes	No	N/A
4. Have the closure/post closure cost estimates been adjusted for inflation by either recalculating cost estimates or using an inflation factor derived from the most recent implicit price deflation? 264.142(b) and 264.144(b)	—	✓	—	—
a) Have closure/post closure cost estimates been revised within 30 days after firm's fiscal year (for facilities using financial test or corporate guarantee)?	—	✓	—	✓
b) For all other financial instruments, have closure/post closure cost estimates been revised within 60 days prior to anniversary date of establishment?	—	—	—	✓
5. Have closure/post closure cost estimates for facilities using financial test or corporate guarantee been revised within 30 days after close of firms fiscal year? 264.142(b) and 264.144(b)	—	—	—	✓
6. For all other financial instruments have closure/post closure cost estimates for facilities been revised within 60 days of their anniversary date of establishment? 264.142(b) and 264.144(b)	—	—	—	✓
7. Have the closure/post closure cost estimates been adjusted by <u>either</u> recalculating cost estimates or using the most recent appropriate inflation factor? 264.142(b) 264.144(b)	—	✓	—	—

Comments: 1a b); 5; 6; Firm is having costs re-evaluated again.

Financial Assurance for Closure/Post Closure Care Rule 703

8. Indicate which of the following financial mechanism(s) are used to establish financial assurance for closure/post closure care Rule 703(1). Also, indicate if its for closure/post closure care Rule 7083 (1).

_____	Trust fund	Rule 704
_____	Surety bond guaranteeing performance of closure/post closure care.	Rule 705
_____	Letter of Credit,	Rule 706.
_____	Certificate of Deposit or Time Deposit account.	Rule 707
_____	Closure post/closure insurance	Rule 708
<u>X</u> _____	Financial test and corporate guarantee for closure/post closure	Rule 709.

	Violation			
	<u>Class</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>

- | | | | | |
|--|-------|----------|-------|----------|
| 9. If multiple mechanisms are used are they limited to trusts, surety bonds, letters of credit certificates of deposits and insurance? Rule 703(2) | _____ | _____ | _____ | <u>✓</u> |
| 10. Are financial assurance mechanisms used for more than one facility? Rule 703(3). If so, indicate their names and ID number. | _____ | <u>✓</u> | _____ | _____ |

Comments: IND 077-045-680; TXD 000449397;

FINANCIAL MECHANISMS

- | | | | | |
|---|-------|-------|-------|----------|
| 11. <u>Trust fund.</u> Rule 704 | | | | |
| A. Is trust agreement on DNR approved form? Rule 704(1) | _____ | _____ | _____ | <u>✓</u> |

	Violation Class	Yes	No	N/A
B. Is trust funded at 100% closure/post closure cost. Rule 704(2).	_____	_____	_____	✓
If no, indicate amount.	_____			
12. Surety Bond Guarantee. Rule 705				
A. Is bond executed on DNR approved form? Rule 705(1)	_____	_____	_____	✓
12. B. Is sum of bond equal or greater than closure/post closure costs? Rule 705 (4). If no, indicate amount.	_____	_____	_____	✓
13. Letter of Credit Rule 706				
A. Is letter of credit executed on a form approved by Director. Rule 706(1)	_____	_____	_____	✓
B. Is letter of credit accompanied by a letter from owner/operator providing the following: EPA ID number; name and address of facility; amount of funds assured for closure/post closure? Rule 706(3)	_____	_____	_____	✓
C. Is letter of credit equal to or greater than closure/post closure costs? Rule 706(5) If no, indicate amount.	_____	_____	_____	✓
14. Certificate of deposit/time deposit. Rule 707				
A. Is certificate or account in only name of the director? Rule 707(2)	_____	_____	_____	✓

	Violation Class	Yes	No	N/A
B. Is there an agreement which identifies reasons which director may cash the certificate or account on a DNR approved form? Rule 707(3)	_____	_____	_____	✓
C. Is certificate for amount equal to closure/post closure cost estimates. Rule 707(4). If no, indicate amount.	_____	_____	_____	✓
15. Closure/post closure insurance. Rule 708.				
A. Does certificate use wording approved by director; or	_____	_____	_____	✓
B. A certified true and complete copy of the policy. Rule 708(1)	_____	_____	_____	✓
C. Is the closure/post closure insurance policy issued for face amount at least equal to current closure/post closure cost estimate? Rule 708(4). If no, indicate amount.	_____	_____	_____	✓
16. If using multiple assurance mechanisms, do they equal or exceed closure/post closure cost estimates? Rule 703(2). Indicate total.				
Comments:	_____	_____	_____	✓
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

		Violation			
		Class	Yes	No	N/A
17.	Financial test and corporate guarantee, Rule 709. For financial test does the owner operator meet A or B? Rule 709(1)				
A. All of the following:					
1. Two of the following ^{1.399} three ratios: 1.399					
a. Ratio of liabilities to net worth less than 2.		_____	<u>X</u>	_____	_____
b. A ratio of sum of net income plus depreciation depletion and amortization to total liabilities of more than 0.1.		_____	<u>X</u>	_____	_____
c. A ratio of current assets to liabilities of more than 1.5. and: ^{1.93}		_____	<u>X</u>	_____	_____
2. Net working capital and tangible net worth each not less than 6 ^{0.1989} times the sum of closure and post/closure cost estimates.		_____	<u>X</u>	_____	_____
3. Tangible net worth not less than \$10,000,000 and:		_____	<u>X</u>	_____	_____
4. Assets in the U.S. not less than 90% of total assets or not less than 6 times the closure/post closure costs and:		_____	_____	_____	<u>X</u>
5. Total assets in Michigan not less than \$50,000,000 or not less than 6 times sum of approved closure/post closure cost estimates (larger of the two).		<u>I</u>	<u>X</u>	<u>X</u>	_____

Comments: All computations derived from corporate totals, not just Michigan Seamless Tube Division

or all of the following:

		Violation			
		<u>Class</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>
B.	1. An acceptable Standard and Ppoors or Moody's Rating for the most recent bond issuance.	_____	_____	_____	<u>X</u>
	2. Tangible net worth not less than 6 times the sum of closure/post closure cost estimates.	_____	<u>X</u>	_____	_____
	3. Tangible net worth not less than \$10,000,000	_____	<u>X</u>	_____	_____
	4. Assets in the U.S. not less than 90% of total assets or not less than 6 times closure/post closure costs.	_____	_____	_____	<u>X</u>
	5. Total assets in Michigan at least \$50,000,000 or not less than 6 times sum of approved closure/post closure cost estimates (or larger of the two)	_____	<u>I</u>	<u>X</u>	_____

Comments: Financial Test is being used for financial assurance of closure & post-closure care as well as insurance which is necessary
~~liability - Also, I could not find Quanex's~~
liability - Also, I could not find Quanex's
recent Standard & Poor or Moody's Rating

18.	For financial test and corporate guarantee has the owner operator: Rule 709(3)	_____	_____	_____	_____
A.	Have a letter signed by chief financial officer and worded as specified by director.	_____	<u>X</u>	_____	_____
B.	A copy of independent CPA report examining owner operators financial statement.	_____	<u>X</u>	_____	_____
C.	A copy of special report by independent CPA stating:	_____	_____	_____	_____

		Violation Class	Yes	No	N/A
1.	The Independent CPA compared data from chief financial officer which specifies having derived from the independent audit-year-end financial statement; and	_____	<u>X</u>	_____	_____
2.	No matters came to their attention indicating the information needs adjustments.	_____	<u>X</u>	_____	_____
19.	Corporate guarantee. Rule 709.10 Does owner meet requirements of 17 and 18 above; and:				
A.	Use wording identical to wording provided by Director.	_____	_____	_____	<u>X</u>
B.	Does terms of corporate guarantee include:				
1.	Appropriate provisions of owner/operator facts to perform final closure	_____	_____	_____	<u>X</u>
2.	Appropriate cancellation provisions.	_____	_____	_____	<u>X</u>
3.	Alternate financial assurance provisions.	_____	_____	_____	<u>X</u>

Comments: _____

Liability Requirements Rule 710
(Note: When reviewing insurance, do not include amount of deductible coverage)

19.	Does owner/operator maintain liability coverage for sudden and accidental occurrences not less than \$1,000,000 per occurrence with an annual aggregate not less than \$2,000,000? Rule 710(1)	_____	_____	_____	<u>✓</u>
-----	---	-------	-------	-------	----------

	Violation			
	<u>Class</u>	<u>Yes</u>	<u>No</u>	<u>N/A</u>
20. For surface impoundment landfill or land treatment does owner/operator maintain liability coverage for sudden accidental occurrences not less than \$3,000,000 per occurrence with an annual aggregate of not less than \$6,000,000? Rule 701(2)	_____	_____	_____	✓
21. For the required insurance policy(s) is each policy amended by attachment of an endorsement on a form provided by the Director? and	_____	_____	_____	✓
22. Is insurer licensed to transact business in Michigan?	_____	_____	_____	✓

Comments: Quanex Corp. has used ^{the} financial test to satisfy
liability insurance requirements

Quanex Corporation
1900 West Loop South
Suite 1500
Houston, TX 77027
(713) 961-4600



FEB 07 1989

Wayne M. Rose
Vice President
Chief Financial Officer

January 27, 1989

Michigan Department of Natural Resources
Waste Management Division
P. O. Box 30038
Ottawa Street Building - South Tower
Lansing, MI 48909
Attn: Mr. Alan Howard

Ronda
Please review and
draft appropriate response
Wm

RE: EPA Identification Number: MID 082767591

Gentlemen:

I am the Chief Financial Officer of Quanex Corporation, 1900 West Loop South, Suite 1500, Houston, Texas 77027. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care and/or corrective action, as specified in Subpart H of 40 CFR Parts 264 and 265.

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265:

<u>Quanex Location</u>	<u>EPA Identification Number</u>
Michigan Seamless Tube Division 400 McMunn Street South Lyon, MI 48178	MID 082767591

1. The firm identified above owns or operates the following facilities for which financial assurance for closure and post-closure care and/or corrective action is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure care and/or corrective action cost estimates covered by the test are shown for each facility: Michigan Seamless Tube Division, 400 McMunn Street, South Lyon, Michigan 48178. Closure \$1,715,472.
2. The firm identified above guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure and/or post-closure care and/or corrective action of the following facilities owned or operated by its subsidiaries. The current cost estimates for closure and/or post-closure care and/or corrective action, so guaranteed are shown for each facility: None.
3. In states where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this owner or operator is demonstrating financial assurance for closure or post-closure care or corrective action at the following facilities through the use of a test equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure care and/or corrective action cost estimates, covered by such a test are shown for each facility: Michigan Seamless Tube Division - Closure \$1,715,472.

RECEIVED

FEB 01 1989

Waste Management
Division

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, or corrective action is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanisms specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent State mechanisms. The current closure and/or post-closure and/or corrective action cost estimates not covered by such financial assurance are shown for each facility: None.

This owner or operator is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this owner or operator ends on October 31. The figures for the following items marked with an asterisk (*) are derived (see detail in Attachment) from this owner's or operator's independently audited, year-end financial statements for the latest completed fiscal year, ended October 31, 1988.

PART B. CLOSURE AND/OR POST-CLOSURE CARE AND/OR CORRECTIVE ACTION AND LIABILITY COVERAGE

ALTERNATIVE I

1. Sum of current closure, post-closure and corrective action cost estimates (total of all cost estimates listed above).	\$ 1,715,472
2. Amount of annual aggregate liability coverage to be demonstrated.	\$ 8,000,000
3. Sum of lines 1 and 2	\$ 9,715,472
*4. Total liabilities	\$ 154,811,000
*5. Tangible net worth	\$ 146,624,000
*6. Net worth	\$ 146,654,000
*7. Current assets	\$ 162,361,000
*8. Current liabilities	\$ 89,402,000
9. Net working capital (line 7 minus line 8).	\$ 72,959,000
*10. The sum of net income plus depreciation, depletion and amortization.	\$ 36,566,000
*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.).	\$ n/a

Michigan Department of Natural Resources
January 27, 1989
Page 3

	<u>YES</u>	<u>NO</u>
12. Is line 5 at least \$10 million?	<u>X</u>	<u> </u>
13. Is line 5 at least 6 times line 3?	<u>X</u>	<u> </u>
14. Is line 9 at least 6 times line 3?	<u>X</u>	<u> </u>
*15. Are at least 90% of assets located in the U.S.? If not, complete line 16.	<u>X</u>	<u> </u>
16. Is line 11 at least 6 times line 3?	<u>n/a</u>	<u> </u>
17. Is line 4 divided by line 6 less than 2.0?	<u>X</u>	<u> </u>
18. Is line 10 divided by line 4 greater than 0.1?	<u>X</u>	<u> </u>
19. Is line 7 divided by line 8 greater than 1.5?	<u>X</u>	<u> </u>

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 264.151(g) as such regulations were constituted on the date shown immediately below.

Sincerely,

Wayne M. Rose

Wayne M. Rose
Vice President
Chief Financial Officer
January 27, 1989

WMR/jb
Attachment

QUANEX CORPORATION AND SUBSIDIARIES
CONSOLIDATED FINANCIAL DATA AT 10/31/88
(In Thousands)

	<u>Current Assets</u>	<u>Current Liabilities</u>	<u>Net Working Capital</u>
Per Annual Report to Shareholders 10/31/88	\$153,107	\$ 88,287	\$ 64,820
Net Working Capital included in Assets Held for Disposition (1)	254	1,115	(861)
Replacement Cost > LIFO Value Inventory (2)	<u>9,000</u>	<u>-</u>	<u>9,000</u>
As adjusted 10/31/88	<u>\$162,361</u>	<u>\$ 89,402</u>	<u>\$ 72,959</u>

(1) Oil Country Tubular Division-Houston ceased operations in the fourth quarter of 1984. At 10/31/88 net current liabilities of \$861 are included in Assets Held for Disposition (non-current asset).

(2) With respect to inventories valued using the LIFO method, replacement cost exceeds the LIFO value by approximately \$9,000 at 10/31/88.

Tangible Net Worth at 10/31/88 consists of:

Shareholders' equity	\$146,654
Less:	
Other intangibles, net	<u>(30)</u>
Tangible Net Worth	<u>\$146,624</u>
Total Liabilities:	
Per Annual Report to Shareholders at 10/31/88	\$154,811
Add:	
Current Liabilities classified as Assets Held for Disposition	<u>1,115</u>
As adjusted	<u>\$155,926</u>
Net Earnings	\$ 18,211
Depreciation, depletion & amortization	<u>18,355</u>
	<u>\$ 36,566</u>

January 27, 1989

Board of Directors
Quanex Corporation
Houston, Texas

We have examined the consolidated financial statements of Quanex Corporation ("the Company") and subsidiaries as of and for the year ended October 31, 1988 and have issued our report thereon dated November 29, 1988. We have also read the attached letter dated January 27, 1989 from Mr. Wayne M. Rose, Vice President and Chief Financial Officer of the Company, to the Michigan Department of Natural Resources, Waste Management Division and have performed the procedures enumerated below with respect to the financial data specified in items 4 through 10 of such letter. The procedures we performed are summarized as follows:

- a. We compared the financial data specified in items 4 through 10 of such letter to the corresponding amounts in the Attachment to such letter.
- b. We compared the amounts of "Current Assets" and "Current Liabilities" reflected in the caption "Per Annual Report to Shareholders 10/31/88", "Shareholders' equity", "Total Liabilities: Per Annual Report to Shareholders at 10/31/88", "Net Earnings" and "Depreciation, depletion and amortization" in the Attachment to the corresponding amounts as set forth in the consolidated financial statements referred to above.
- c. We compared the amount of "Current Assets" reflected in the caption "Replacement Cost greater than LIFO Value Inventory" in the Attachment to the corresponding amount as set forth in Note 4 to the consolidated financial statements referred to above.
- d. We compared the amounts of "Current Assets" and "Current Liabilities" reflected in the caption "Net Working Capital included in Assets Held for Disposition" and "Other intangibles, net" in the Attachment to the corresponding amounts in schedules prepared by the Company's employees. We also compared the components of each amount as set forth in the schedules to the corresponding amounts in the Company's financial records.

Quanex Corporation
January 27, 1989
Page 2

- e. We checked for the clerical accuracy of all computations in the Attachment and the schedules referred to in d.

In connection with the procedures referred to above, no matters came to our attention that caused us to believe that the financial data specified in items 4 through 10 of the letter referred to above has not been derived from the consolidated financial statements and financial records of the Company.

Touche Ross & Co.

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<i>APPENDIX</i>	
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I.3 Post-Closure Detection Monitoring Program	
I.4 Hydrologic Evaluation of Landfill Performance (HELP) Simulations	

- The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by 265.116 and 265.119(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Regional Administrator.
- Quanex will submit to the MDNR and the U.S. EPA Region V Regional Administrator a signed certification that the notation on the deed has been recorded.

I-4 CLOSURE COST ESTIMATE [40CFR 270.14(b)(15) and 265.142]

Table I.2 outlines the estimated cost of closure for the surface impoundments. Table I.3 details Item 7 of Table I.2 which is the estimated closure costs for the 30-Year Detection Monitoring Program around the surface impoundments. A 3 percent interest per year increase for the 30-Year Detection Monitoring Program has been incorporated into the cost estimate to account for inflation/rising costs. Cost estimates are based upon current quotations obtained from an experienced contractor.

I-5 FINANCIAL ASSURANCE MECHANISM FOR CLOSURE CARE AND LIABILITY COVERAGE [40 CFR 270.14(b)(15), 265.143(d) and 265.143(d)]

Quanex Corporation, Michigan Seamless Tube Division, initially furnished an irrevocable letter of credit in the amount of \$1,715,472 for closure costs of the two surface impoundments at the South Lyon facility. Quanex Corporation subsequently met the financial guarantee for closure according to 40CFR 265.143(e). A copy of this letter is included in Appendix I-2.

I-6 POST CLOSURE COST ESTIMATE [40CFR 270.14(b)(16) and 265.144]

Table I.3 contains a detailed, written estimate, in current dollars, of the annual cost of post-closure monitoring of the facility in accordance with the applicable post-closure regulations in 40 CFR 265.117 through 265.120, 265.228, 265.258, and 265.310. The post-closure cost estimate was calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under 40 CFR 265.117. This cost estimate was based on third party costs.

TABLE L2
SURFACE IMPOUNDMENTS
CLOSURE IN PLACE

ITEM No.	WORK ITEM	ESTIMATED UNIT	UNIT QUANTITY	PRICE	AMOUNT
1	Sludge solidification	LS			\$950,000*
2	Excavate, compact, and regrade area	CY	6,000	\$5.75	34,500
3	Cover system				
	Low permeability soil, 6"	CY	4,000	9.85	39,400
	Sand, 20"	CY	10,000	12.80	128,000
	Top soil, 6"	CY	3,500	19.00	66,500
	Seed and mulch	SY	14,500	0.42	6,090
	PVC membrane	SF	127,000	0.35	44,450
4	Drainage ditches	LF	1,700	3.50	5,950
5	Engineering design (conceptual plus detailed)	LS			62,000
6	Construction management	LS			80,000
7	Contingencies, 10%	LS			40,149
8	30-year Detection Monitoring Program (see Table I.3)	---			1,145,380
					Total: \$1,652,419

* Expense already incurred. Not included in total.

TABLE I.3
COST ESTIMATE: FOR THE POST-CLOSURE
DETECTION MONITORING PROGRAM

MONITORING YEAR	WORK ITEM	QUARTERLY COST	YEARLY COST	ESTIMATED COST
1	Install 9 monitoring wells	---	---	\$24,800
1	Sample monitoring wells	\$2,100	\$8,400	\$8,400
1	Sample analyses	5,300	21,200	21,200
1	Report requirements (quarterly; annual), management and evaluation	---	8,000	8,000
Year-one total:				\$62,400

MONITORING YEAR	WORK ITEM	QUARTERLY COST	YEARLY COST	ESTIMATED COST	ESTIMATED COST WITH 3% ANNUAL INFLATION
2-30	Sample monitoring wells (for 29 years)	---	\$4,100	\$116,700	\$185,400
2-30	Sample analyses (for 29 years)	---	5,870	170,230	265,430
2-30	Report requirements, management and evaluation (for 29 years)	---	4,360	126,641	197,150
2-30	Post-closure maintenance of cover			15,000	435,000
*Year 2-30 total:				\$428,571	\$1,082,980
Total cost (30 year):				\$490,971	\$1,145,380

* 3% interest per year for 29 years has been calculated in the listed costs.

I-7 CLOSURE CERTIFICATION [40 CFR 265.115]

Within 60 days of completion of final closure of the surface impoundment, a closure certification will be submitted to the Director by registered mail. This certification will state that the surface impoundment was closed in accordance with the specifications in the approved closure plan. It will be signed by a responsible corporate officer of the owner/operator and by an Independent Registered Professional Engineer.

I-8 FINANCIAL ASSURANCE MECHANISM FOR POST-CLOSURE CARE [40 CFR 270.14(b)(16) and 265.145]

Quanex Corporation, Michigan Seamless Tube Division, initially furnished the Regional Administrator with an irrevocable letter of credit in the amount of \$1,715,472 for surface impoundment post-closure costs at the South Lyon facility. Quanex Corporation subsequently met the financial guarantee for closure according to 40 CFR 265.145.

I-9 LIABILITY REQUIREMENTS [40 CFR 270.14(b)(17) and 265.147]

Quanex Corporation, Michigan Seamless Tube Division, meets the requirements for the Financial Test for Liability Coverage for sudden and non-sudden accidental occurrences with the letter provided in Appendix I-2. The letter, signed by Wayne M. Rose, Vice President, Chief Financial Officer, and certified by Touche, Ross and Company, was submitted on January 27, 1989 in accordance with 40 CFR 264.151(g).

APPENDIX I.2
FINANCIAL ASSURANCE MECHANISM

7/30/89

STATE OF MICHIGAN



NATURAL RESOURCES COMMISSION
THOMAS J. ANDERSON
MARLENE J. FLUHARTY
KERRY KAMMER
O. STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

GORDON E. GUYER, Director

S.E. MICHIGAN FIELD OFFICE
Waste Management Division
505 W. Main
Northville, MI 48167

August 31, 1989

Donald Comfort
Quanex - Michigan Seamless Tube Division
400 McMunn
South Lyon, Michigan 48178

RE: MID 082 767 591

Dear Mr. Comfort,

On August 25, 1989, an inspection was conducted at your facility located at 400 McMunn, South Lyon, Mi. The purpose of the inspection was to evaluate compliance of that facility with the requirements of Subtitle C of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended; Michigan's Hazardous Waste Management Act, Act 64 P.A. 1979, as amended; Michigan's Liquid Industrial Waste Hauling Act, Act 136, P.A. 1969, as amended; and Land Disposal Restriction requirements of Subtitle C of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended.

As a result of that inspection, it has been determined that your facility is in violation of the following requirement(s):

1. Employees have not received their annual training update in accordance with 40 CFR 265.16 (c). The last training was conducted in June of 1988.
2. The company has failed to provide financial assurance for closure costs and liability insurance in accordance with R299.9701 (1 & 2) and R299.9710 (1 & 2). Specifically the following deficiencies were noted:
 - Financial assurance must be established on forms approved by the director of the Michigan Department of Natural Resources.
 - The mechanism must be established for current closure cost estimates as noted in the amended closure plan. This will require a change to the Chief Financial Officer's letter.
 - The independent CPA report was not signed by a certified public accountant.

Pg. 2, August 31, 1989
Quanex, MID 082767591

Enclosed for your review is a copy of the current financial test form. As I indicated to you earlier, this form is currently being revised. We hope to have it finalized within the next month. Before completing the form for your next fiscal year submittal, I recommend you contact me to assure that you will be using the most current approved form.

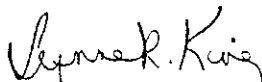
Additional comments:

As a result of changes in waste generation through waste minimization there will not be any regular consistent generation of wastes. Wastes generated will more likely occur due to unforeseen circumstances requiring disposal of unused product, or spill cleanup. You stated you will be going through the company's MSDS files to determine possible waste type. This activity is recommended along with a review of the company's notification form to assure it accurately reflects wastes generated.

We request your response by September 30, 1989 documenting your corrective actions to these violations.

If you have any questions, please contact me at (313) 344-4670.

Sincerely,



Lynne K. King
Environmental Quality Analyst

LK\lk
Enclosure
cc: B. Okwumabua
U.S. EPA, Region V

RCRA/ACT 64 INSPECTION REPORT

U.S. EPA I.D. Number M 1 D C 8 2 1 6 7 5 9 1
(or Michigan)

FACILITY NAME
(Mailing Address)

Quarver Corporation
400 Michigan
South Lyon MICHIGAN 48175
CITY ZIP CODE

DATE 8/25/89 TIME OF INSPECTION (FROM) 930 (TO) 1100

PERSON(S) INTERVIEWED

TITLE

TELEPHONE

David Gifford Environ. Engng. 437-3117

INSPECTOR(S)

AGENCY/TITLE

TELEPHONE

John King DNR-WMD 314-4670

Primary Business of this Facility:

Manufacture of seamless
tubes.

Reason for Inspection:

☒ Routine ☐ Follow-up ☐ Complaint

Based upon the inspection, this facility:

FORM

☐ is a non-generator/liquid industrial waste generator
☐ conditionally exempt small quantity generator
☐ small quantity generator
☒ generator
☐ transporter
☒ treatment/storage/disposal facility

A
A
A
B
C
D
E

Date of Last Inspection

INSPECTION FORM D

Part 6 of Rules

P.A. 64 of 1979

TREATMENT, STORAGE, DISPOSAL FACILITY

This Facility:

- ☒ Generates Hazardous Waste (Also use Generator Appendix)
- ☐ Treats Hazardous Waste
- ☒ Stores Hazardous Waste
- ☐ Disposes of Hazardous Waste
- ☐ Transports Hazardous Waste (Also use Form C)

This Facility:

- ☐ Accepts wastes from off-site sources
- ☒ Handles only its own wastes

If applicable, hazardous waste is stored in the following:

- ☐ Drums (Containers)
- ☐ Above-ground tanks
- ☐ Underground tanks
- ☐ Waste piles
- ☐ Lagoons
- ☐ Other
- ☐ Not applicable

If applicable, hazardous wastes are treated/disposed in the following:
(Attach appropriate checklist)

- ☒ Surface Impoundments
- ☐ Waste piles
- ☐ Land Treatment
- ☐ Landfills
- ☐ Incineration/Thermal Treatment
- ☐ Chemical, Physical and Biological Treatment
- ☐ Above-ground tanks

INSPECTION D

____ Underground tanks

☒ Drums

____ Other

____ Not applicable

WASTE STREAMS

Hazardous Waste Code/Name	Source	Type of Storage	How Much
D002 + D001		occasional generation	
		no regular generation of	
		wastes	
		all pickling operation automatic feed to	
		stabilization & WWT P.	
WWT sludge > non hq.			
CH			

D001 D002 generated report - no further action unless
circumstances require disposal of product

INSPECTION FORM D
Part 6 Rules
P.A. 64 of 1979

HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITY
Applies to Those Facilities That Do Not Have an Act 64 Permit

General Facility Standards
Rule 601, 40 CFR 265, Subpart B

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation Class</u>
1. <u>If required</u> , have the following been notified:				
a.) Notified Director of receipt of hazardous waste from a foreign source? 265.12(a)	—	—	/	II
b.) Notified Director of change of owner or operator. 40 CFR Part 270. 265.12(b)	—	—	/	II

Comments: _____

2. General Waste Analysis: 265.13

a.) Has the owner or operator obtained a detailed chemical and physical analysis of the waste? 265.13(a)	/	—	—	I
b.) Does the owner or operator have a detailed waste analysis plan on file at the facility? 265.13(b)	/	—	—	I
c.) Does the waste analysis plan specify procedures for inspection and analysis of each movement of hazardous waste from off-site? 265.13(c)	/	—	—	I

Comments: Wastes will be analyzed at time of accumulation
Company needs to review MSDS for possible waste
operation. Generation of wastes is limited to occasional

INSPECTION FORM D

	Yes	No	N/A	Violation Class
3. Security - If applicable, do security measures include:				
a.) 24-hour surveillance? 265.14(b)(1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
b.) i. Artificial or natural barrier around facility? 265.14(b)(2)(i)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
ii. Controlled entry? 265.14(b)(2)(ii)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
c.) Danger sign(s) at entrance? 265.14(c)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	I

Comments: _____

4. Owner or operator inspections: 265.15*

a.) Does the owner or operator inspect the facility for malfunctions, deterioration, operator errors, and discharges of hazardous waste that may affect human health or the environment? 265.15(a)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	II
b.) Does the owner or operator have a written inspection schedule at the facility? 265.15(b)(1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	II
c.) If so, does the schedule address the inspection of the following items:				
i. Monitoring equipment? 265.15(b)(1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	II
ii. Safety and emergency equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	II
iii. Security devices? 265.15(b)(1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	II
iv. Operating and structural equipment (i.e. dikes, pumps, etc.)? 265.15(b)(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	II

* These violations are Class II, unless observations of hazardous conditions or violations are noted in the log and not corrected which result in the release or actual harm to the environment or human health; in such instances violations are Class I.

INSPECTION FORM D

Violation
ClassYesNoN/A

- | | | | | | | |
|------|---|-------|-------|-------|-------|----|
| v. | Type of problems to be looked for during the inspection (e.g. leaky fitting, defective pump, etc.)? | _____ | _____ | ✓ | _____ | II |
| vi. | inspection frequency (based upon the possible deterioration rate of the equipment)?
265.15(b)(4) | ✓ | _____ | _____ | _____ | II |
| d.) | Are areas subject to spills inspected daily when in use?
265.15(b)(4) | ✓ | _____ | _____ | _____ | II |
| e.) | Does the owner or operator maintain an inspection log or summary of owner or operator inspections? | _____ | _____ | _____ | _____ | II |
| f.) | Does the inspection log contain the following information:
265.15(d) | | | | | |
| i. | The date and time of the inspection? 265.15(d) | _____ | _____ | _____ | _____ | II |
| ii. | The name of the inspector? 265.15(d) | ✓ | _____ | _____ | _____ | II |
| iii. | A notation of the observations made? 265.15(d) | _____ | _____ | _____ | _____ | II |
| iv. | The date and nature of any repairs or remedial actions?
265.15(d) | _____ | _____ | _____ | _____ | II |

Comments:

Personal inspections have not been conducted since
impoundments + pad closed

5. Do personnel training records include:
265.16

- | | | | | | | |
|-----|--|---|-------|-------|-------|---|
| a.) | Job titles? 265.16(d)(1) | / | _____ | _____ | _____ | I |
| b.) | Job descriptions? 265(d)(2) | / | _____ | _____ | _____ | I |
| c.) | Description of training?
265.16(d)(3) | ✓ | _____ | _____ | _____ | I |

INSPECTION FORM D

Violation

Yes	No	N/A	Class
-----	----	-----	-------

d.) Records of training?
265.16(d)(4)

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	II
-------------------------------------	--------------------------	--------------------------	----

e.) Do new personnel receive re-
quired training within six
months? 265.16(d)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	I
--------------------------	--------------------------	-------------------------------------	---

f.) Do personnel training records
indicate that personnel have
taken part in an annual review
of training? 264.16(c)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
--------------------------	--------------------------	--------------------------	---

Comments: Last Training 6/88 Training Due 1

6. If required, are the following special
requirements for ignitable, reactive, or
incompatible wastes addresses?
265.17

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	I
-------------------------------------	--------------------------	-------------------------------------	---

a.) Special handling? 265.17(a)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
--------------------------	--------------------------	--------------------------	---

b.) No smoking signs? 265.17(a)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
--------------------------	--------------------------	--------------------------	---

c.) Separation and protection from
ignition sources? 265.17(a)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
--------------------------	--------------------------	--------------------------	---

Comments: _____

PREPAREDNESS AND PREVENTION
Rule 606, 40 CFR 265, Subpart C

1. Is there any evidence of fire, explosion,
or release of hazardous waste or hazard-
ous waste constituents 40 CFR Rule 265.31

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
-------------------------------------	--------------------------	--------------------------	---

Comments: checked by surface inspections

INSPECTION FORM D
Violation
Class

Yes No N/A

Class

2. If required, does this facility have the following equipment: 40 CFR 265.32

- | | | | | |
|--|-------------------|----------|----------|----------|
| a.) Internal communications or alarm systems. 40 CFR 265.32(a) | <u>/</u> | <u>—</u> | <u>—</u> | <u>I</u> |
| b.) Telephone or 2-way radios at the scene of operations. 40 CFR 265.32(b) | <u>/</u> | <u>—</u> | <u>—</u> | <u>I</u> |
| c.) Portable fire extinguishers, fire control, spill control equipment and decontamination equipment. 40 CFR 265.32(c) | <u>/</u> | <u>—</u> | <u>—</u> | <u>I</u> |
| d.) Indicate the volume of water and/or foam available for fire control. | <u>City water</u> | <u>—</u> | <u>—</u> | <u>—</u> |

Comments: Community well

3. Testing and Maintenance of Emergency Equipment: 265.33

- | | | | | |
|---|----------|----------|----------|----------|
| a.) Has the owner or operator established testing and maintenance procedures for emergency equipment? 265.33 | <u>/</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| b.) Is emergency equipment maintained in operable condition? 265.33 | <u>/</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| c.) <u>If required</u> , has owner or operator provided immediate access to internal alarms? 40CFR 265.34(a) | <u>/</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| d.) Is there adequate aisle space for unobstructed movement for personnel and emergency equipment. 40 CFR 265.35. | <u>/</u> | <u>—</u> | <u>—</u> | <u>I</u> |

INSPECTION FORM D

Yes	No	N/A	Violation Class
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Comments: _____

4. Has the owner or operator attempted to make arrangements with local authorities in case of emergencies. 40 CFR 265.37

II

Comments: _____

CONTINGENCY PLAN AND EMERGENCY PROCEDURES

Rule 607, 40 CFR 265 Subpart D.

1. Does the contingency plan contain the following information:

- a.) The actions facility personnel must take to comply with 265.51 and 265.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention Control and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part (As applicable). 265.52(a)

I

- b.) Arrangements or attempts to make arrangements agreed to by local police departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to 40 CFR 265.52(c) 265.37

II

- c.) Names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator. 40 CFR 265.52(d)

II

INSPECTION FORM D
Violation
Class

- d.) A list of all emergency equipment at the facility which includes the location and physical description of each item on the list, and a brief outline of its capabilities. 40 CFR 265.52(e)
- ✓ — — II
- e.) An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? (This plan must describe signal(s) to be used to begin evacuation, evacuation routes and alternate evacuation routes.) 40 CFR 265.52(f)
- ✓ — — II
- f.) Is the facility emergency coordinator identified. 40 CFR 265.55
- ✓ — — II
- g.) Is coordinator familiar with all aspects of site operation and emergency procedures. 40 CFR 265.55
- ✓ — — II
- h.) Does the Emergency Coordinator have the authority to carry out the Contingency Plan. 40 CFR 265.55
- ✓ — — II
- i.) If an emergency situation has occurred at this facility, has the emergency coordinator followed the emergency procedures listed in 265.55.
- ✓ — — I
- j.) Has contingency plan been amended to reflect changes in regulations, plan failure, changes in the facility, list of emergency coordinators, changes in emergency equipment. 40 CFR 265.54
- ✓ — — II

Comments:

last change 1987 - still valid 1988

INSPECTION FORM D

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation Class</u>
2. Are copies of the contingency plan available at site and local emergency organizations. 40 CFR 265.53(a) 264.53(b)	_____	_____	_____	II

Comments: _____

USE OF MANIFEST SYSTEM
Rule 601(2)(b)

1. Does this facility receive hazardous waste accompanied by a manifest. If yes, complete the following:

a.) Are copies signed and dated.

Rule 608(1)(a)

_____	_____	<input checked="" type="checkbox"/>	I
-------	-------	-------------------------------------	---

b.) Are significant discrepancies noted on the manifest.

Rule 608(1)(b)

_____	_____	_____	I
-------	-------	-------	---

c.) Are transporters given 1 copy of the signed manifest.

Rule 608(1)(c)

_____	_____	_____	I
-------	-------	-------	---

d.) Are copies sent to the generator within 30 days. Rule 608(1)(d)

_____	_____	_____	I
-------	-------	-------	---

e.) Are copies of the manifest retained for 3 years.

_____	_____	_____	I
-------	-------	-------	---

f.) Are copies of the manifest returned to DNR within 10 days after end of month. Rule 608(1)(f)

_____	_____	_____	II
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Comments: _____

INSPECTION FORM D

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
2. Does this facility ship hazardous waste off-site. If yes, complete Generator Appendix. Rule 608(3)	_____	_____	_____	N/A

Comments: _____

3. For unreconciled significant discrepancies in manifests has the Director been notified. Rule 608(4)	_____	_____	_____	I
--	-------	-------	-------	---

Comments: _____

RECORDKEEPING

Rule 601(3) 40 CFR 265. Subpart E

1. Does the owner or operator of this facility maintain an operating record? Rule 609(1)	_____	_____	✓	II
--	-------	-------	---	----

Comments: Company not regularly generating waste
information appropriate maintained2. Does this operating record contain:
265.73

a.) The method(s) and date(s) of each waste's treatment, storage, or disposal as required in 40 CFR Part 265.73(b)(1) Appendix E	_____	_____	_____	II
--	-------	-------	-------	----

INSPECTION FORM D

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation Class</u>
b.) The location and quantity of each hazardous waste within the facility? (This information should be cross-referenced to specific manifest number, if waste was accompanied by a manifest.) 265.73(b)(2)	_____	_____	_____	II _____
c.) If this facility disposes of hazardous waste on-site, is there a map or diagram of disposal area. 265.73(b)(2)	_____	_____	✓ _____	II _____
d.) Records and results of all waste analyses, trial tests, monitoring data, and operator inspections? 265.73(b)(3)	✓ _____	_____	_____	II _____
e.) Reports detailing all incidents that required implementation of the Contingency Plan? 265.73(b)(4)	_____	_____	✓ _____	II _____
f.) Records and results of inspections as required in 40 CFR 264.15(d) 265.73(b)(5)	_____	_____	✓ _____	II _____
g.) <u>If required</u> , monitoring, testing, or analytical when required by construction permit or operating license. Rule 265.73(b)(6)	_____	_____	✓ _____	II _____
h.) Closure and post closure cost estimates. 265.73(b)(7)	✓ _____	_____	_____	II _____

Comments: _____

3. Are all required records available and maintained for at least 3 years.
265.74(3)

✓ _____ _____ II

INSPECTION FORM D

Yes	No	N/A	Violation Class
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Comments: _____

REPORTING

- Has the owner or operator submitted a biennial report to the required administration by March 1 of even numbered years? 265.75

II

Comments: _____

- If applicable, for TSD's that receive hazardous waste from off-site sources. Rule 265.76

I

- Has the facility accepted any hazardous waste from an off-site generator subject to Rule 205 without a manifest or shipping paper?

I

- If "a" is yes, provide the identity of the source of the waste and a description of the quantity, type, and date received for each unmanifested hazardous waste shipment.

I

USE AND MANAGEMENT OF CONTAINERS Drums/Roll-off Boxes/Gondolas

- Is hazardous waste accumulated in containers? If no, skip to tank section. ✓

N/A

- Is each container clearly marked with accumulation date and hazardous waste number Rule 306(1)(c) If no, how many

I

INSPECTION FORM D

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
b.) Has more than 90 days elapsed since date marked (Operating license needed as required in Part 5 of Rules) If yes, how many drums _____ Accumulation dates _____	_____	_____	_____	I _____
c.) Is each container labeled or marked clearly with the words "Hazardous Waste" rule 306(c). If no, how many _____	_____	_____	_____	I _____
d.) Are containers in good condition Rule 306(1)(a), 40 CFR 265.171. If no, specifically what is their conditions. _____	_____	_____	_____	I _____
e.) Are containers compatible with waste in them. RULE 306(1)(a) 40 CFR 265.172. If no, explain _____	_____	_____	_____	I _____
f.) Are containers stored closed, Rule 306(1)(a), 40 CFR 265.173(a) If no, how many _____	_____	_____	_____	I _____
g.) Are containers managed to prevent leaks? Rule 306(1)(a), 40 CFR 265.173(b) If no, explain _____	_____	_____	_____	I _____
h.) Are containers inspected weekly for leaks and defects? Rule 306(1)(a) 40 CFR 265.174.	_____	_____	_____	I _____
i.) Are ignitable and reactive wastes stored at least 15 meters (50 Feet) from property line? (Indicate if waste is ignitable or reactive) Rule 306(1)(a) 40 CFR 265.176. If no, explain _____	_____	_____	_____	I _____
j.) Are incompatible wastes stored in separate containers (If not the provisions of 40 CFR 265.17(b) apply) Rule 306(1)(a) 40 CFR 265.176. If no, explain _____	_____	_____	_____	I _____

INSPECTION FORM D

	Yes	No	N/A	Violation Class
k.) Are containers of incompatible waste separated or protected from each other by physical barriers or sufficient distance? Rule 306(1)(a) 40 CFR 265.177.	—	—	—	I

Comments: The company may accumulate waste in containers —
none currently on site

3. If storing free liquid, does hazardous waste storage area include: rule 306(1)(a) 40 CFR 264.175.

a.) Impervious base free of cracks. 40 CFR 264.175(b)(1)

I

b.) Containment capable of holding 10% of volume of containers or 10% of largest container whichever is greater.

I

Comments: _____

4. Is hazardous waste being accumulated at the point of generation, Rule 306(2)

N/A

If yes:

a.) Is container less than 55 gallons or one quart of acutely hazardous waste? Rule 306(2)

I

b.) Is container under control or operator and near point of generation and under control of operator? Rule 306(2)

I

c.) Are containers in good condition? Rule 306(2) 40 CFR 265.171

I

INSPECTION FORM D
Violation

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Class</u>
d.) Are containers compatible with waste in them? Rule 306(2) 40 CFR 265.172	_____	_____	_____	I _____
e.) Are containers stored closed when not in use and managed to prevent leaks? Rule 306(2) 40 CFR 265.173	_____	_____	_____	I _____
f.) Are containers marked with the words "Hazardous Waste" and waste number (or other words that identify the contents) Rule 306(2)	_____	_____	_____	I _____

Comments: _____

TANKS

1. Is hazardous waste accumulated in tanks? If no, skip to c.	_____	✓	_____	N/A _____
a.) Is each tank labeled or marked with the words "Hazardous Waste", Rule 306(1)(a), 40 CFR 252.34(a)	_____	_____	_____	I _____
b.) Are tanks used to store only those wastes which will not cause corrosion, leaking or premature failure of the tank? Rule 306(1)(a), 40 CFR 262.192(b).	_____	_____	_____	I _____
c.) Do uncovered tanks have at least 60 cm (2 feet) of freeboard, or dikes or other containment structure. Rule 306(1)(a), 40 CFR 265.192(c)?	_____	_____	_____	I _____
d.) Do continuous feed systems have a wastefeed cutoff? Rule 306(1)(a), 40 CFR 265.192(d).	_____	_____	_____	I _____
e.) Are required daily and weekly inspections done? Rule 306(1)(a), 40 CFR 265.194?	_____	_____	_____	II _____

INSPECTION FORM D

Violation

Yes	No	N/A	Class
-----	----	-----	-------

f.) Are reactive and ignitable wastes in tanks protected or rendered non-active or non-ignitable? Indicate if waste is ignitable or reactive. (If waste is rendered non-reactive or non-ignitable, see treatment requirements. 261.21 or 261.23 Rule 306(1)(a), 40 CFR 265.199

II

g.) Are incompatible wastes stored in separate tanks? (If not, the provisions of 40 CFR 265.17(b) apply.) Rule 306(1)(a), 40 CFR 265.199.

I

h.) Has the owner or operator observed the National Fire Protection Association's buffer zone requirements for tanks containing ignitable or reactive wastes? Rule 306(1)(a) 40 CFR 198 (3)(b)

I

Tank capacity: _____ gallons

Tank diameter: _____ feet

Distance of tank from property line _____ feet.

(See tables 2-1 through 206 of NFPA's "Flammable and Combustible Liquids Code - 1977" to determine compliance.)

Comments: _____

2. Do above ground tanks have a 150% containment area constructed of impervious material, or if tanks hold incompatible wastes is each tank structurally enclosed? Rule 615(3)

I

INSPECTION FORM D

Yes	No	N/A	Violation Class
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Comments: _____

3. Do owners and operators of underground tanks do all the following:

a.) Provide secondary adequate containment and leachate collection system. Rule 615(4)(a)	_____	_____	_____	I
b.) Conduct an inventory of the contents of the tanks at least twice a month. rule 615(4)(b)	_____	_____	_____	I
c.) Conduct leachate sampling at least once a year. Rule 615(4)(c)	_____	_____	_____	I
d.) Maintain an accurate inventory of the tank. Rule 615(4)(d)	_____	_____	_____	I

Comments: _____

4. Is hazardous waste accumulated in other than tanks or containers?
If yes, explain _____

_____	✓*	_____	N/A
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* Company has surface impoundment
not in closure

Comments: _____

INSPECTION FORM D

CLOSURE AND POST CLOSURE (Part 265 Subpart G)
 Part 7 of Act 64 Rules

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation Class</u>
1. Closure 265.112				
a.) Is the facility closure plan available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
b.) Does the plan identify				
i. maximum extent unclosed during facility life?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
ii. maximum hazardous waste inventory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
iii. estimated year of closure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
iv. schedule of closure activities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I

Comments:

Fiscal year end October 31, 1989new mechanism with fiscal year change.

*2. Post-Closure 265.118 - Act 64 Rules

a.) Is the post-closure plan available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	I
b.) Does this plan contain:				
i. description of groundwater monitoring activities and frequencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
ii. description of maintenance activities and frequencies for				
AA. integrity of cap. final cover, or containment structures, where applicable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
BB. facility monitoring equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I

INSPECTION FORM D

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
iii. name, address, and phone number of person or office to contact during post- closure care period?	_____	_____	_____	I _____
c.) Has the post-closure period begun?	_____	_____	_____	N/A _____
d.) Is the written post-closure cost estimate available? 265.144	_____	_____	_____	I _____

Comments: _____

* Applies only to disposal facilities.

TREATMENT, DISPOSAL AND STORAGE FACILITY
WITH ONE OR MORE OF THE FOLLOWING
(CHECK THE APPROPRIATE BOXES)

☒ Surface Impoundments - 40 CFR 265 Subpart K

☐ Waste Piles - 40 CFR 265, Subpart L

☐ Land Treatment - 40 CFR 265, Subpart M

☐ Landfills - 40 CFR 265, Subpart N

☐ Incineration and Thermal Treatment - 40 CFR 265
Subpart O and P

☐ Chemical, Physical and Biological Treatment - 40 CFR 265
Subpart Q.

☒ Groundwater Monitoring 40 CFR 265 Subpart F, to be
completed if 40 CFR 265 Subparts K, L, M and N are used

SURFACE IMPOUNDMENTS (Part 265, Subpart K)

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation Class</u>
1. Do surface impoundments have at least 60 cm (2 feet) of freeboard? 265.222	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
2. Do earthen dikes have protective covers? 265.223	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I
3. Are waste analyses done when the impoundment is used to store a substantially different waste than before? 265.225	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	I
4. Is the freeboard level inspected at least daily? 265.226(1)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	II
5. Are the dikes inspected weekly for evidence of leaks or deterioration? 265.226(2)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	II
6. Are reactive and ignitable wastes rendered non-reactive or non-ignitable before storage in a surface impoundment? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.) 265.229	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	I
7. Are incompatible wastes stored in different impoundments? (If not, the provisions of 40 CFR 265.17(b) apply.) 265.230	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	I

Comments: * surface impoundment in class - all
liquids have been removed. No waste being added.

WASTE PILES (40 CFR Part 265, Subpart L)

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation Class</u>
1. Are waste piles covered or protected from dispersal by wind? 265.251	—	—	—	I
2. Is each incoming movement of waste analyzed before being added to the waste pile? 265.252	—	—	—	I
3. Are leachate, run-off, and runoff controlled as per the requirements of 265.253? 265.253	—	—	—	I
4. Are reactive and ignitable wastes rendered non-reactive or non-ignitable before storage in a pile? Indicate if waste is ignitable or reactive. (If waste is rendered non-reactive or non-ignitable, see treatment requirements.) 265.256	—	—	—	I
5. Are piles of reactive or ignitable waste protected from materials or conditions that might cause them to ignite or react? 265.256	—	—	—	I
6. Are incompatible wastes stored in different piles? (If not, the provisions of 40 CFR 265.17(b) apply.) 265.257 (a)	—	—	—	I
7. Are piles of incompatible waste protected by barriers or distance from other waste? 265.257(b)	—	—	—	I

Comments: _____

LAND TREATMENT (Part 265, Subpart M)

Violation
Class

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	
1. Is treated hazardous waste capable of biological or chemical degradation? 265.272	___	___	___	I
2. Are run-off and run-on diverted from the facility or collected. 265.272	___	___	___	I
3. Is waste analyzed according to 265.273?	___	___	___	I
4. If food chain crops are grown at the facility, has the owner or operator addressed the requirements of 265.276?	___	___	___	I
5. Is an unsaturated zone monitoring plan designed and implemented to detect the vertical migration of hazardous waste and provide information on the back-ground concentrations of the hazardous waste available? 265.278	___	___	___	I
6. Does the unsaturated zone monitoring plan address the minimum information specified in 265.278?	___	___	___	I
7. Are records kept regarding application dates and rates, quantities, and locations, of all hazardous waste placed in the facility? 265.279	___	___	___	I
8. Are the special requirements fulfilled regarding land treatment of ignitable or reactive wastes? (Indicate if waste is ignitable or reactive.) 265.281	___	___	___	I
9. Are incompatible wastes land treated? (If yes, 265.17(b) applies) 265.282	___	___	___	I

Comments: _____

LANDFILLS (Part 265, Subpart N)

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation Class</u>
1. General Operating Requirements 265.302 Does the facility provide the following:				
a.) Diversion of run-on away from active portions of the fill?	___	___	___	I
b.) Collection of run-off from active portions of the fill?	___	___	___	I
c.) Is collected run off treated?	___	___	___	I
d.) Control of wind dispersal of hazardous waste?	___	___	___	I
2. Surveying and Recordkeeping 265.309 Does the Operating Record Include:				
a.) A map showing the exact location and dimensions of each cell?	___	___	___	I
b.) The contents of each cell and the location of each hazardous waste type within each cell?	___	___	___	I
3. Special requirements for ignitable or reactive waste. Are ignitable or reactive wastes treated so the resulting mixture is no longer ignitable or reactive? (Indicate if waste is ignitable or reactive.) 265.312	___	___	___	I
4. Special Requirements for Incompatible Wastes. 265.313	___	___	___	I
Does the owner or operator dispose of incompatible waste in separate cells? (If not, the provisions of 40 CFR 265.17(b) apply.)	___	___	___	N/A

Note: If waste is rendered non-reactive or non-ignitable see treatment requirements. If not, the provisions of 40 CFR 265.17(b) apply.

Comments: _____

LANDFILLS (Part 265. Subpart N)

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
5. Special requirements for containers. 265.315. Are empty containers crushed flat, shredded, or similarly reduced in volume before being buried beneath the surface of the landfill?	<u> </u>	<u> </u>	<u> </u>	<u>I</u>

Comments: _____

INCINERATION AND THERMAL TREATMENT (40 CFR Part 265, Subparts C and D)

11. Has documented or written data been substituted for analysis of either: Yes No N/A

Lead? — — —

Mercury: — — —

Comments: _____

b.) List other parameters for which the waste is tested to enable owner or operator to establish steady state or determine the types of pollutants which may be emitted. (Note in remarks any which you feel should be tested.)

Comments: _____

	Yes	No	N/A	Violation Class
3. <u>Monitoring and Inspections</u> * I 265.347 T 265.37				
a.) Are combustion/emission control instruments monitored at least every 15 minutes?	—	—	—	I
b.) Is steady state maintained or corrections attempted?	—	—	—	I
c.) Is stack plume observed at least hourly for normal color and opacity?	—	—	—	I
d.) Did any stack observations made by owner or operator show a plume different than normal?*	—	—	—	I
*Inspections adequately conducted but not daily or weekly as required are Class II violations.				

INCINERATION AND THERMAL TREATMENT (40 CFR Part 265, Subparts C and D)

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
e.) If "yes" to (d) above, were corrections made to return emissions to normal appearance?*	___	___	___	I
f.) Are the complete unit and associated equipment inspected daily for leaks, spills, and fugitive emissions?	___	___	___	I
** Specify in Remarks for what period of time this was checked.				
g.) Are emergency shutdown controls and system alarms checked daily for proper operation?	___	___	___	I

Comments: _____

4 Open Burning T 265.382 (open burning does not apply to incineration)

- a.) Only complete this part if the facility open burns hazardous waste.
- i. Does this facility burn only waste explosives? (A No answer means other hazardous waste is open-burned). _____ I
- ii. If this facility open-burns waste explosives, does it burn the waste at a distance greater than or equal to the minimum specified distance. _____ I
(below) _____

Pounds of waste explosives or propellants	Minimum distance from open burning or detonation to the property of others	
--	--	--

0 to 100	204m	670 ft.
100 to 1,000	330m	1,250 ft.
1,001 to 10,000	530m	1,730 ft.
10,001 to 30,000	690m	2,260 ft.

Comments: _____

CHEMICAL, PHYSICAL AND BIOLOGICAL TREATMENT (Part 265, Subpart Q)
 Violation
 Yes No N/A Class

- | | | | | | |
|----|--|-----|-----|-----|---|
| 1. | Is equipment used to treat only those wastes which will not cause leakage, corrosion, or premature failure? 265.401 | ___ | ___ | ___ | I |
| 2. | Is a continuously fed system equipped with a means of hazardous waste inflow stoppage or control (e.g., cut-off system?) | ___ | ___ | ___ | I |
| 3. | Has the owner or operator addressed the waste analysis requirements of 265.402? | ___ | ___ | ___ | I |
| 4. | Are inspection * procedures followed according to 265.403? | ___ | ___ | ___ | I |
| 5. | Are the special requirements fulfilled for ignitable or reactive wastes? 265.405 | ___ | ___ | ___ | I |
| 6. | Are incompatible wastes treated?
(If yes, 265.17(b) applies.) 265.406 | ___ | ___ | ___ | I |

Comments: _____

*Inspections adequately conducted but not daily or weekly as required in Class II violations.

GROUNDWATER MONITORING (Part 265 Subpart F)
Rule 612 of Act 64

<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
------------	-----------	------------	----------------------------------

Complete this section for facilities that treat, store, or dispose of hazardous waste in landfills, surface impoundments and/or by land treatment.

1. Has the owner or operator of the facility implemented a groundwater monitoring system?

<u>✓</u>	<u> </u>	<u> </u>	<u>I</u>
----------	-----------	-----------	----------

Comments: _____

If "no", skip to number 11.

2. Has the owner or operator of the facility implemented an alternate groundwater monitoring system as described in 265.909(d)?

<u> </u>	<u>/</u>	<u> </u>	<u>I</u>
-----------	----------	-----------	----------

Comments: _____

If "yes", skip to number 12.
If "no", continue.

3. Does the groundwater monitoring system meet the following requirements of 265.91:

- a.) At least one well installed hydraulically up-gradient from the limit of the waste management area?

<u>/</u>	<u> </u>	<u> </u>	<u>N/A</u>
----------	-----------	-----------	------------

Indicate the total number of up-gradient wells. 1

GROUNDWATER MONITORING (Part 265 Subpart F)
Rule 612 of Act 64

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation Class</u>
b.) At least three wells installed hydraulically down-gradient at the limit of the waste management area?	<u> / </u>	<u> </u>	<u> </u>	<u> N/A </u>
Indicate the total number of down-gradient wells. <u> 222 </u>				
c.) Are the number, locations, and depths of all wells sufficient to yield groundwater samples that are representative of groundwater under the facility?	<u> </u>	<u> </u>	<u> </u>	<u> N/A </u>
Sketch the locations of the wells relative to the waste management area.				<u> See enclosed map </u>
d.) Are the monitoring wells constructed in accordance with 265.91(c) (e.g. properly cased, screened, etc.)?	<u> / </u>	<u> </u>	<u> </u>	<u> N/A </u>

Comments: _____

4. Has the owner or operator developed a written groundwater sampling and analysis plan that includes procedures and techniques for: 265.92

GROUNDWATER MONITORING (Part 265 Subpart F)

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
a.) Sample collection?	<u> </u>	<u> </u>	<u> </u>	<u>N/A</u>
b.) Sample preservation and shipment?	<u> </u>	<u> </u>	<u> </u>	<u>N/A</u>
c.) Analytical procedures?	<u> </u>	<u> </u>	<u> </u>	<u>N/A</u>
d.) Chain of custody control?	<u> </u>	<u> </u>	<u> </u>	<u> </u>
5. Does the owner or operator follow his groundwater sampling and analysis plan?	<u> </u>	<u> </u>	<u> </u>	<u>N/A</u>

Comments: _____

6. Is the groundwater sampling and analysis plan maintained at the facility? N/A

Comments: _____

7. Has the owner or operator determined the concentration or value of all the groundwater monitoring parameters listed in 265.92(b) in accordance with paragraphs c and d of 265.92? N/A

Comments: _____

GROUNDWATER MONITORING (Part 265 Subpart F)
Rule 612 of 64

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
8. Has the owner or operator developed an <u>outline</u> of a comprehensive groundwater quality assessment program that is capable of determining: 265.93				
a.) Whether hazardous waste or hazardous waste constituents have entered the groundwater?	<u>/</u>	<u> </u>	<u> </u>	N/A
b.) The rate and extent of migration of hazardous waste or hazardous waste constituents in the groundwater?	<u>/</u>	<u> </u>	<u> </u>	N/A
c.) The concentration of hazardous waste or hazardous waste constituents in the groundwater.	<u>/</u>	<u> </u>	<u> </u>	N/A

Comments: _____

9. Has the owner or operator performed a statistical analysis of groundwater monitoring data as required in 265.93(b)?	<u>/</u>	<u> </u>	<u> </u>	N/A
10. Was there a statistically significant increase (or pH decrease) detected in any well?				
a.) If "yes", has the owner or operator responded in accordance with the procedures prescribed in 265.93 paragraphs c through f?	<u>/</u>	<u> </u>	<u> </u>	N/A

Skip to number 14.

GROUNDWATER MONITORING (Part 265 Subpart F)

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
Comments: _____				

- | | | | | |
|--|-------|-------|-------|-----|
| 11. Has the owner or operator prepared a written groundwater monitoring waiver demonstration for the facility?
Inspectors should request a copy of the waiver document. | _____ | _____ | _____ | N/A |
| a.) If yes, was the waiver demonstration maintained at the facility? | _____ | _____ | _____ | N/A |
| b.) If yes, has the waiver demonstration been certified by a qualified geologist or geotechnical engineer? | _____ | _____ | _____ | N/A |
| c.) If yes, skip questions 12, 13, and 14. | _____ | _____ | _____ | N/A |

Comments: _____


- | | | | | |
|---|-------|-------|-------|-----|
| 12. Has the owner or operator submitted an alternate groundwater monitoring system to the Regional Administrator?
If the plan for an alternate groundwater monitoring system was not submitted to the Regional Administrator the inspector should request a copy for review. | _____ | _____ | _____ | N/A |
| a.) If yes, has the plan been certified by a qualified geologist or geotechnical engineer? | _____ | _____ | _____ | N/A |

GROUNDWATER MONITORING (Part 265 Subpart F)
Rule 612 of Act 64

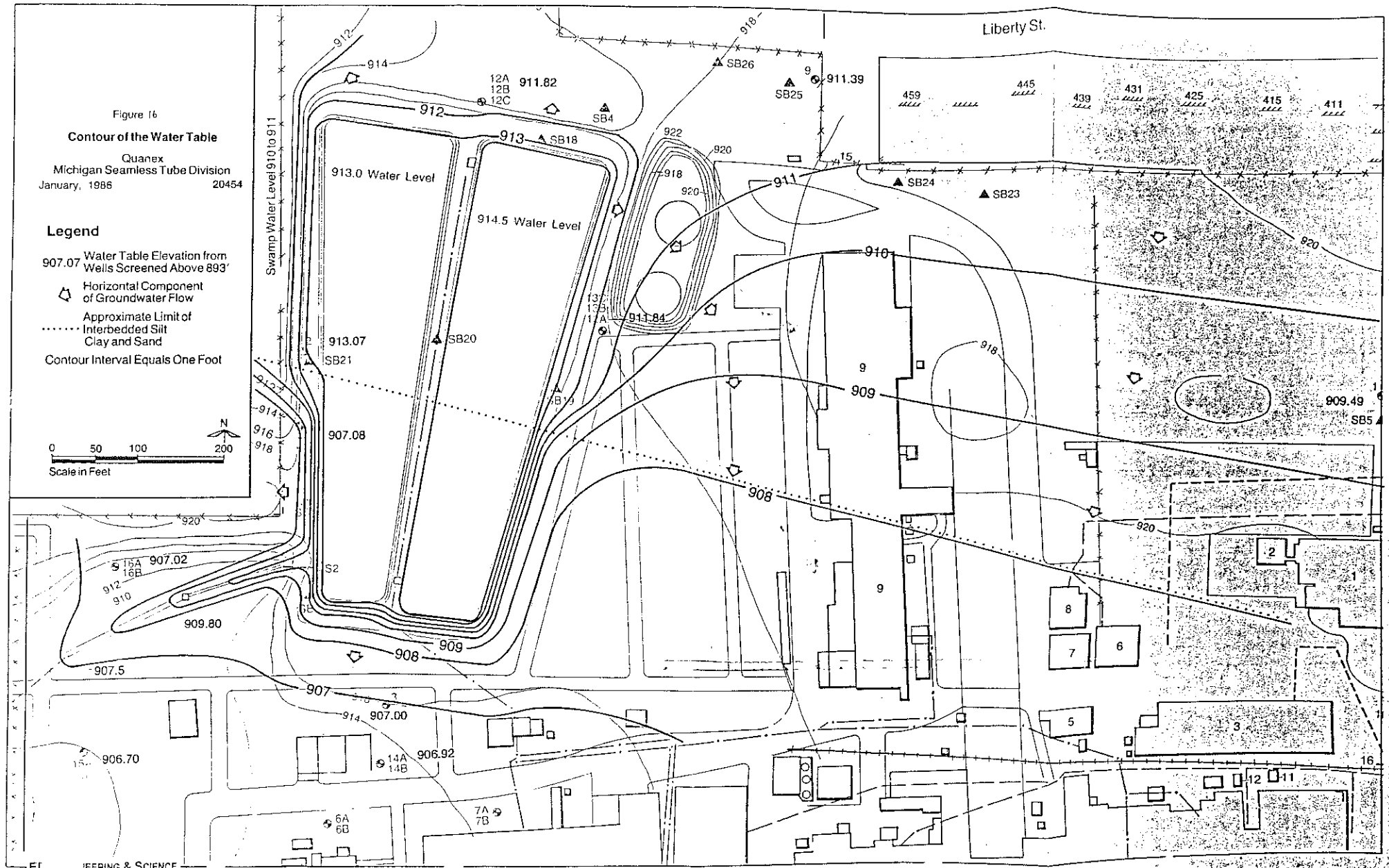
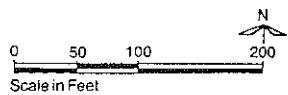
	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
Comments:				
13. Does the alternate groundwater monitoring plan address the requirements of 265.90(d)?				N/A
Comments:				
14. Does the owner or operator submit reports and maintain records as required in 265.94?				N/A
Comments:				

Contour of the Water Table

Legend

 Horizontal Component
of Groundwater Flow

..... Approximate Limit of
Interbedded Silt
Clay and Sand
Contour Interval Equals One Foot



INSPECTOR:

L. King

FACILITY NAME:

Quincy

U.S. EPA ID #

MID082767591

SURFACE IMPOUNDMENT RETROFITTING CHECKLIST ADDENDUM
(Pursuant to Section 3005(j)(1) of the
Hazardous Waste and Solid Waste Amendments)

- | | <u>Yes</u> | <u>No</u> | <u>N/A</u> |
|--|------------|-----------|------------|
| 1. Does this facility have a hazardous waste surface impoundment(s)? | <u>✓</u> | <u>—</u> | <u>—</u> |

Comments: _____

2. Has surface impoundment received hazardous waste after November 8, 1988?

— ✓ —

Comments: _____

3. If yes to question 2, describe quantity, types (waste codes) when wastes were placed in the impoundment and any additional information inspector feels may be pertinent. In addition, indicate if samples were taken.
- _____
- _____
- _____
- _____

Yes No N/A

4. If yes to question 2, has facility obtained a retrofit exemption. (Note: document type of exemption.)

Comments: _____

5. If surface impoundment retrofitted, has the following occurred:

- a. According to schedule
- b. Properly retrofitted in accordance with Section 3004(a) (1)(A) including all of the following: 2 or more liners, leachate collection and ground-water monitoring.

_____ ☒

Comments: _____

6. If surface impoundment undergoing closure, has the following occurred:

- a. Closure plan submitted (must be submitted prior to June 13, 1988)

☒ *approved 9/24/87*

- b. Undergoing closure prior to December 8, 1988.

☒ *12/88*

Comments: _____

			Violation
<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Class</u>

GENERATOR APPENDIX

Section A: Scope

Complete this Appendix if the owner or operator of a TSD facility also generates hazardous waste that is subsequently shipped off-site for treatment, storage, or disposal.

Manifest Requirements

- | | | | | | |
|----|---|-----------|---------------|---------------|---------------|
| 1. | a.) Does the generator have copies of the manifest available for review and on-site. 262.40 | <u>✓</u> | <u> </u> | <u> </u> | II |
| | b.) Examine manifests for shipments in past 6 months. Indicate approximate number of manifested shipments during that period. | <u>4*</u> | <u> </u> | <u> </u> | <u> </u> |

Comments: all in January had disposal of concrete pad

- | | | | | | |
|----|--|---------------|---------------|---------------|----|
| 2. | Do the manifest forms examined contain the following information (If so, make copies of, or record information from manifests that do not contain the critical elements: | | | | |
| | a.) Manifest document number (Rule 304(2)(a)? | <u>✓</u> | <u> </u> | <u> </u> | II |
| | b.) The generator's name, mailing address, telephone number, and EPA Identification number. Rule 204(2)(b) | <u>✓</u> | <u> </u> | <u> </u> | II |
| | c.) The name and EPA ID number of transporter. Rule 304(2)(c) | <u> </u> | <u> </u> | <u> </u> | II |
| | d.) Name, address, and EPA ID number of designated permitted facility and alternate facility. Rule 304(2)(d) | <u> </u> | <u> </u> | <u> </u> | II |
| | e.) The description of waste(s) (DOT shipping name, DOT hazard class, DOT identification number. Rule 304(2)(e) | <u>✓</u> | <u> </u> | <u> </u> | II |

GENERATOR APPENDIX

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>Violation</u> <u>Class</u>
f.) The total quantity of waste(s) and the type and number of containers loaded. Rule 304(1)(f)	_____	_____	_____	II _____
g.) Hazardous waste number describing the wastes. Rule 304(1)(g)	_____	_____	_____	II _____
h.) Certification as required in Rule 304(1)(h)	_____	_____	_____	II _____
i.) Signatures as required in Rule 304(4)	_____	_____	_____	I _____
j.) Waste minimization program/certification	_____	_____	_____	I _____

Comments: _____

3. Reportable exceptions. Rule 308(3), 40 CFR 262.42

- a.) For manifests examined in (2) (except for shipments within the last 35 days), enter the number of manifests for which the generator has NOT received a signed copy from the designated facility within 35 days of the date of shipment. _____
- b.) For manifests indicated in (4a), enter the number for which the generator has submitted exception reports (40 CFR 262.42) to the Regional Administrator. _____

I

Comments: _____

DRAFT

FINANCIAL CAPABILITY

Part 7 R299.9701 to R299.97104.

Note: Facilities not yet issued an operating license in accordance with Part 5 of these rules shall comply with Financial capability, Part 7, of these rules. by July 14, 1989. Rule 701.(2) Federal and State facilities are exempt from financial capability requirements.

Cost estimate for Closure and Post Closure Care Rule 702(1):

40 CFR 264.142 and 264.144

	Violation Class	Yes	No	N/A
1. Is the written closure cost estimate available? 264.142 (2). Note: Indicate the amount:	_____	✓	_____	_____
2. Is the written post closure cost available? 262.144(a) (Required only for disposal surface impoundment, land treatment, landfill unit or waste pile. Note: Indicate the amount:	_____	✓	_____	✓
3. Have any revisions been made to the closure/post closure cost estimates which increase the cost of closure/post closure? 264.142(c) and 264.144(c).	✓	_____	_____	_____
4. Have closure/post closure cost estimates been revised to reflect any increase in costs? 264.142(d) and 264.14(d)	✓	_____	_____	_____

3-10-89

Violator
Class

5. Have closure/post closure cost estimates for facilities using financial test⁴ or corporate guarantee been revised within 30 days after close of firms fiscal year? 264.142(b) and 264.144(b)
6. For all other financial instruments have closure/post closure cost estimates for facilities been revised within 60 days of their anniversary date of establishment? 264.142(b) and 264.144(b)
7. Have the closure/post closure cost estimates been adjusted by either recalculating cost estimates or using the most recent appropriate inflation factor? 264.142(b) 264.144(b)

W. P. C. O.

9
8
7
6
5
4
3
2
1

OK of August 27, 1989 - Longships forest near chow
is 10/31. * estimated due 12/1/89 post larvae 1 year 33

Federal Assistance for Closures of Post Closures Case Rule 703

9. Indicate which of the following financial mechanism(s) are used to establish financial assurance for closure/post closure care Rule 703(1). Also, indicate if its for closure/post closure care Rule 7083 (1).

THE
D. H. H.
TOL

Surety bond guaranteeing performance of closure/post closure care. Rule 705

[illegible]

Violation

Class

Yes

No

N/A

_____ Certificate of Deposit or Time Deposit
account. Rule 707

_____ Closure post/closure insurance Rule 708

_____ Financial test and corporate guarantee for
closure/post closure Rule 709.

9. If multiple mechanisms are
used are they limited to
trusts, surety bonds, letters
of credit certificates of
deposits and insurance?
Rule 703(2)

_____ _____ _____ _____ ✓

10. Are financial assurance
mechanisms used for more
than one facility?
Rule 703(3). If ~~you~~^{SC} indi-
cate their names and ID
number.

_____ ✓ _____ _____

Comments: _____

FINANCIAL MECHANISMS

11. Trust fund. Rule 704

A. Is trust agreement on
DNR approved form?
Rule 704(1)

_____ _____ _____ _____ ✓

B. Is trust funded at 100%
closure/post closure cost.
Rule 704(2).

_____ _____ _____ _____

If no, indicate amount. _____

12. Surety Bond Guarantee.
Rule 705.

A. Is bond executed on DNR
approved form?
Rule 705(1)

_____ _____ _____ _____ ✓

		Violation Class	Yes	No	N/A
12.	B. Is sum of bond equal or greater than closure/post closure costs? Rule 705 (4). If no, indicate amount.	_____	_____	_____	_____
13.	Letter of Credit Rule 706				
	A. Is letter of credit executed on a form approved by Director. Rule 706(1)	_____	_____	_____	_____
	B. Is letter of credit accompanied by a letter from owner/operator providing the following: EPA ID number; name and address of facility; amount of funds assured for closure/post closure? Rule 706(3)	_____	_____	_____	_____
	C. Is letter of credit equal to or greater than closure/post closure costs? Rule 706(3) If no, indicate amount.	_____	_____	_____	_____
14.	Certificate of deposit/time deposit. Rule 707				
	A. Is certificate or account in only name of the director? Rule 707(2)	_____	_____	_____	_____
	B. Is there an agreement which identifies reasons which director may cash the certificate or account on a DNR approved form? Rule 707(3)	_____	_____	_____	_____
	C. Is certificate for amount equal to closure/post closure cost estimates. Rule 707(4). If no, indicate amount.	_____	_____	_____	_____

	Violation Class	Yes	No	N/A
15. Closure/post closure insurance. Rule 708.				
A. Does certificate use wording approved by director; or	_____	_____	_____	✓
B. A certified true and complete copy of the policy. Rule 708(1)	_____	_____	_____	_____
C. Is the closure/post closure insurance policy issued for face amount at least equal to current closure/post closure cost estimate? Rule 708(4). If no, indicate amount.	_____	_____	_____	_____

16. If using multiple assurance mechanisms, do they equal or exceed closure/post closure cost estimates? Rule 703(2).

Indicate total. _____

Comments: _____

17. Financial test and corporate guarantee. Rule 709. For financial test does the owner operator meet A or B? Rule 709(1)

A. Two of the following three ratios:

$$\frac{154,811,000}{146,624,000} = 1.056$$

1. Ratio of liabilities to net worth less than 2. _____

✓ _____

2. A ratio of sum of net income plus depreciation depletion and amortization to total liabilities of more than 0.1. _____

✓ _____

$$\frac{36,546,000}{154,811,000} = .236$$

	Violation Class	Yes	No	N/A
$\frac{162,361,000}{89,462,000} = 1.816$ $1652,419 \times 6 = 9,914,514$ NWC = 72,459,000 TNW = 146,624,000	3. A ratio of current assets to liabilities of more than 1.5. and:			
4. Net working capital and tangible net worth each not less than 6 times the sum of closure and post/closure cost estimates.		✓		
5. Tangible net worth not less than \$10,000,000 and:		✓		
6. Assets in the U.S. not less than 90% of total assets or not less than 6 times the closure/post closure costs and:		✓		
7. Total assets in Michigan not less than \$50,000,000				not established

Comments: New estimated closure costs 1,652,419

Company and Federal format

or all of the following:

- B.
1. An acceptable Standard and Poors or Moody's Rating for the most recent bond issuance. ✓
 2. Tangible net worth not less than 6 times the sum of closure/post closure cost estimates.
 3. Tangible net worth not less than \$10,000,000
 4. Assets in the U.S. not less than 90% of total assets or not less than 6 times closure/post closure costs.

Violation

Class

Yes

No

N/A

5. Total assets in Michigan
at least \$50,000,000

Comments:

18. For financial test and corporate
guarantee has the owner operator:
Rule 709(3)

A. Have a letter signed by
chief financial officer
and worded as specified by
director.

B. A copy of independent CPA
report examining owner
operators financial
statement.

C. A copy of special report
by independent CPA stating:

1. The Independent CPA
compared data from chief
financial officer which
specifies having derived
from the independent audit-
year-end financial state-
ment; and

2. No matters came to their
attention indicating the
information needs
adjustments.

19. Corporate guarantee. Rule 709.10
Does owner meet requirements of
17 and 18 above; and:

A. Use wording identical to
wording provided by
Director.

Violation

Class

Yes

No

N/A

B. Does terms of corporate guarantee include:

- | | | | | |
|---|-------|-------|-------|-------|
| 1. Appropriate provisions of owner/operator's assets to perform final closure | _____ | _____ | _____ | _____ |
| 2. Appropriate cancellation provisions. | _____ | _____ | _____ | _____ |
| 3. Alternate financial assurance provisions. | _____ | _____ | _____ | _____ |

Comments: Report was not signed by CPA

Liability Requirements Rule 710

19. Does owner/operator maintain liability coverage for sudden and accidental occurrences not less than \$1,000,000 per occurrence with an annual aggregate not less than \$2,000,000? Rule 710(1)

Company establishes liability requirements for sudden & accidental through use of financial test.

20. For surface impoundment landfill or land treatment does owner/operator maintain liability coverage for sudden accidental occurrences not less than \$3,000,000 per occurrence with an annual aggregate of not less than \$6,000,000? Rule 701(2)

✓

21. For the required insurance policy(s) is each policy amended by attachment of an endorsement on a form provided by the Director? and

Violation

Class Yes No N/A

22. Is insurer licensed to
transact business in
Michigan?

Comments: _____

** Burda*

SONNENSCHNEIN CARLIN NATH & ROSENTHAL

1201 PENNSYLVANIA AVENUE, N.W.

NEW YORK
CHICAGO
SAN FRANCISCO

SUITE 700
WASHINGTON, D.C. 20004

(202) 637-2000
FACSIMILE
(202) 637-2099

John S. Hahn
(202) 637-2030

August 3, 1989

RECEIVED

AUG 04 1989

Waste Management
Division

VIA FEDERAL EXPRESS

Kenneth J. Burda, Chief
Hazardous Waste Permits Section
Waste Management Division
Department of Natural Resources
Stevens T. Mason Building
Lansing, Michigan 48909

RECEIVED

AUG 10 1989

WASTE MANAGEMENT DIV.

Dear Mr. Burda:

Pursuant to Rules 299.4309 and 299.4311, I am hereby submitting on behalf of my client, Quanex Corporation, a petition requesting the Department of Natural Resources to classify lime-stabilized pickle liquor sludge that has been solidified with fly ash as a Type III waste.

Quanex generated the sludge subject to this petition during past wastewater treatment operations at its plant in South Lyon, Michigan and the waste currently is located in two impoundments undergoing RCRA closure. This petition is separate from Quanex's December 1987 request currently pending before the Department to receive Type III designation for lime stabilized pickle liquor sludge in two drying beds at the South Lyon plant.

If your office needs any further information concerning this petition, please do not hesitate to contact me.

Sincerely yours,



John S. Hahn

Enclosure

cc: Joan Peck
Kim Paksi

SONNENSCHN CARLIN NATH & ROSENTHAL

1201 PENNSYLVANIA AVENUE, N.W.

NEW YORK
CHICAGO
SAN FRANCISCO

SUITE 700
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(202) 637-2000
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(202) 637-2099

John S. Hahn
(202) 637-2030

March 16, 1989

VIA FEDERAL EXPRESS

Kenneth J. Burda, Chief
Hazardous Waste Permits Section
Waste Management Division
Department of Natural Resources
Stevens T. Mason Building
Lansing, Michigan 48909

Dear Mr. Burda:

I am writing to summarize our meeting on March 10, 1989 concerning waste issues at Qualex Corporation's plant in South Lyon, Michigan. For your convenience, I have attached the list of attendees at the meeting. As you will recall, two primary issues were discussed: first, the removal of debris found in the berm of a surface impoundment, and second, the appropriate waste designation of the lime stabilized pickle liquor sludge at the plant.

Debris Removal

In the course of stabilizing sludge in one of its surface impoundments, Qualex encountered a buried pocket of debris that appears to include drum remnants and scrap steel. Qualex notified the Michigan Department of Natural Resources ("MDNR") about the debris by letter dated December 19, 1988. Laboratory testing detected only low levels of organic compounds, and no hazardous waste was found. The results were presented to MDNR in letters dated January 3, 1989 and February 2, 1989 from Kathryn Lynnes of EDI to Ronda Hall.

At our meeting, Qualex proposed removing this debris. You agreed that such removal may begin under MDNR's supervision. The removal will be conducted pursuant to a workplan to be submitted to you by March 24, 1989.

RECEIVED

MAR 17 1989

Waste Management
Division

J. xc. District
Kim Paks
Dave Slayton

Lynne

Ronda
Please review and
discuss w/ Kim to
make sure we are
in agreement w/ contents
of letter. Please keep
me apprised of status

Ken

RECEIVED

MAR 27 1989

WASTE MANAGEMENT DIV.

Kenneth J. Burda
March 16, 1989
Page 2

As will be described in the workplan, Quanex will sample the debris as we proceed with the excavation. Based on the information currently available, we believe that it will be appropriate to dispose of any drum remnants at a Type II landfill. If possible, we would reclaim any steel scrap encountered during the excavation.

As I stated during the meeting, Quanex has proposed this focused response so that removal of the debris may proceed without delay. I understand that the federal EPA will receive a copy of our workplan and may choose to exercise its oversight authority under the RCRA program.

We appreciate your pledge to expedite review of the work plan. We would prefer to schedule an excavation contractor as soon as possible and to begin work in April. Let me reiterate that we will welcome MDNR's oversight at all stages of the project and that we will notify MDNR if we encounter any unforeseen difficulties.

Sludge Characterization

In December 1987, Quanex submitted to MDNR a Type III Designation Petition for the lime stabilized waste pickle liquor sludge in its drying beds on the west side of the South Lyon plant. Although we understand this petition to be complete, MDNR has not yet acted on it.

At our meeting, we respectfully requested a decision on this petition. Quanex also indicated that it expects to be able to demonstrate that the lime stabilized waste pickle liquor sludge in its surface impoundments, which has been stabilized with fly ash, is either Type III or inert waste. Completing these designations is necessary to permit Quanex to assess its remedial/closure alternatives for the facility as a whole.

Ms. Paksi reported that MDNR currently does not have any numerical criteria for determining whether a material is Type III waste. I understood from Ms. Paksi that the State did use a numerical limit of three times drinking water standards for this purpose until approximately 1986. I also understood that MDNR is in the process of developing new numerical Type III criteria, and hopes to have criteria established by this summer. Ms. Paksi indicated that the numerical criteria for Type III waste are likely to be somewhat more stringent than three times drinking water standards, and that the criteria for inert waste are likely to be somewhat more stringent than drinking water standards.

SONNENSCHNEIN CARLIN NATH & ROSENTHAL

Kenneth J. Burda
March 16, 1989
Page 3

Quanex plans to submit the appropriate analytical data to MDNR for the stabilized sludge in its surface impoundments and for the sludge/soil interface. As agreed, we will submit analytical results for one sample of each of the two types of material per impoundment quadrant, for a total of eight samples: four sludge and four soil/sludge mixtures.

As requested, Quanex will submit this data in a separate petition. Our goal is to submit the petition promptly. We believe, and Ms. Hall indicated agreement, that the petition can be submitted consistently with the deadlines in our existing closure plan. Recognizing these deadlines, we will do everything possible to facilitate MDNR's review. In the meantime, I request that MDNR expedite review of our December 1987 petition relating to the sludge drying beds.

I understand that it is MDNR's practice to tie Type III designations to specific disposal sites. Alternative disposal sites have been identified for the sludge drying bed waste, and it is our intention to identify alternative disposal sites for the surface impoundment waste. As stated at the meeting, Quanex wishes to have at least a preliminary designation that the sludge in both the surface impoundments and the drying beds is Type III or inert waste. We believe that with such a designation we could then discuss with MDNR an overall remedial/closure proposal for the South Lyon facility.

We look forward to working with MDNR towards that goal. If I have misconstrued any aspect of our meeting, please contact me as soon as possible.

Sincerely yours,

John S. Hahn/K

John S. Hahn
Counsel for Quanex Corporation

Enclosure

Meeting Attendance Sheet

Date: 3-10-89

[illegible]

DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE DIVISION

PAGE ____ OF ____

STAFF REPORT

RECEIVED

MAR 23 1989

WASTE MANAGEMENT DIV.

DAY

S	M	T	W	TH	F	S

WEATHER

Brite Sun	Clear	Overcast	Rain	Snow
To 32	32-50	50-70	70-85	85 up
Still	Moder.	High	Report No.	
Dry	Moder.	Humid.		

WIND

HUMIDITY

- ☐ Complaint Inspection
☐ Compliance Inspection
☐ Construction Inspection
☐ Permitting Inspection
☐ PEAS Investigation

- ☐ PCB Report/Complaint
☐ Sampling Inspection
☐ Telephone Call
☐ Meeting Notes
☐ Other _____

☐ Act 64

☐ Act 136

☒ Act 245

☒ RCRA

DATE

TIME

3-16-89

10:00 AM

COMPANY/FACILITY

Shaw-Walker, Michigan, Inc.

FACILITY NO.

MID 102 707 591

ADDRESS/LOCATION

10000 E. 10th Street, Detroit, Michigan 48202

STAFF

PARTICIPANTS

See attachment sheet

Met with Shaw-Walker, Inc. to discuss closure of their
sewer treatment system and cleaning of the site in
general. As of the meeting date, the sludge in the surface
treatment tanks had been solidified and no work had
been initiated. The company indicated that they
would submit a work plan to address removal of the debris
from the tanks. The company indicated that they would
complete the work within the next four weeks. We agreed to try to have the work
plan approved by the second third week of April. The
company indicated that they would like to remove the tanks and
debris to a Type II landfill and possibly reclaim scrap
metal encountered during excavation. We stated that the
tanks and debris must be stored in accordance with
state and federal regulations prior to removal to a waste management.
All analytical data would then need to be submitted in the
contamination survey required for incorporating the
information into the closure process. We also informed the company that
the work plan must be submitted to the Department of Natural Resources
for review. We agreed to meet again in the next few weeks to
discuss the work plan and the removal of the tanks and debris.

SIGNED

These =
Rhonda
Ken
Kim

Kate + 2

John Gools. David Gault - Chief Engineer C.
John Hahn - Roger Patrick - attorney.

Type II excavate & remove - Kate's letter

Work plan in few weeks

Barrels are unknown

Work plan Demos hole

Testing on drums.

landfill - Scrap steel metal - try to recycle

Barrels

Start to look with a RCRA unit - no
permits an area beyond RCRA

Take out drums now know & meet again
author to proceed with DOE & EPA

looking for co. response by 2nd wk
get comments to Rhonda by 1st wk.

BFI approval now on Sludge.

Both lagoons solidified & done two

- 12/87 delisting on Sludge - pending ST. 11/62

To Kim - dry bin - for Type III
— want to send an on lagoons
to Kim for Type III as well.
(Sludge)

if Type III proposed WD 1 - Rockwell
& Sidney Quarry

{ Type III class review based on
characteristics of waste & landfill
EP Tox leach - drinking H_2O x 3 (will change)
once promulgated TCLP when
organics concerned.

{ suggest company use stringent DWS

{ Drest will be - DWS.

Soils along edge of impoundments HW listed
liquid is / sludge with. Tend to soils
showing listed constituents will be listed
fly ash used to solidify lagoons
Sludge.

if asure is 210 deadline approached for
RCRA area.

Type III - Specific site visit - insert table

- o will
- o remove barrel & debris
- o Testing
- o petition in an unpairedness
Shodge

agencies in wells & well 6
contaminants need to address
after RERA closure.

Meeting Attendance Sheet

Date: 3-10-89

[illegible]

Lynn RECEIVED: + wa.

DEPARTMENT OF NATURAL RESOURCES
WASTE MANAGEMENT DIVISION

STAFF REPORT

PAGE _____ OF _____
FEB 07 1989

DAY	S	M	T	W	TH	F	S

- ☐ Complaint Inspection
☐ Compliance Inspection
☒ Construction/Closure Inspection
☐ Permitting Inspection
☐ PEAS Investigation
☐ PCB Report/Complaint
☐ Sampling Inspection
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☐ Meeting Notes
☐ Other _____

WEATHER

TEMP

WIND

HUMIDITY

Brite Sun	Clear	Overcast	Rain	Snow
To 32	32-50	50-70	70-85	85 up
Still	Moder.	High	Report No.	
Dry	Moder.	Humid.		

- ☒ Act 64 _____
☐ Act 136 _____
☐ Act 641 _____
☐ HSWA _____
☐ Act 245 _____
☐ RCRA _____

DATE 1-27-87 TIME _____

COMPANY/FACILITY	Quanox	FACILITY NO.	MID 082 767 571
ADDRESS/LOCATION	South Lyon	STAFF	Slayton
PARTICIPANTS	Kate Lynne, J. Tolbert (EDI), Don Comfort (Quanox), Burdy, Hall		
<p>- took slides</p> <p>- observed impoundments, east one has all sludge solidified, have been mixing with Great Lakes Env. gravel mix (Fly ash liner). South end of east impound, built on old landfill - has barrels, pipes, debris, black soil. Barrels are crushed in some cases, others appear whole, but can't tell if they contained anything, are rusted. No sludge has been removed yet.</p> <p>- Are still pumping out west impoundment liquid to NPOES discharge.</p> <p>- Looked at old sludge drying beds, at west end of site, area contains $\approx 70,000 \text{ yds}^3$ according to Quanox</p> <p>- H.W. drum storage clear. concrete removed, will submit cert. document when analytical results come back.</p> <p>- Discussed cleanup options of impoundments + old landfill. Company needs info from DNR (on max "load" of fill) to remove "load". Then will look at site while cleanup of old landfill and sludge. Write me b.l.o.</p>			
SIGNED _____			

FY 1989 HAZARDOUS WASTE COMPLIANCE MONITORING AND ENFORCEMENT LOG ver 10/88

Geotec
Support
Unit

1. EPA ID: MID 082 767 591

NEW

UPDATE

2. HANDLER: OLIANEX CORP.

3. ADDRESS: SOUTH LYONS, MICHIGAN

5. Date of Initial evaluation which
is the basis for this report:

1/12/89

5a. Agency responsible
for evaluation:

E = EPA S = State C = Contractor/EPA
O = Other B = Contractor/State
X = Oversight

6. Type of Evaluation Covered in this Report:

- | | |
|---------------------------------------|--------------------------------------|
| 1 = CII (Compliance Eval. Inspection) | 7 = Part B Call-in Inspection |
| 2 = Sampling Inspection | 8 = Part A Withdrawal Inspection |
| 3 = Record Review | 9 = Closed Facility/Units Inspection |
| 4 = CMI (Comprehensive GWM Eval.) | 10 = Other General Inspection |
| 5 = Compliance Schedule Evaluation | 11 = Case Development Inspection |
| 6 = Citizen Complaint | 12 = O&M Inspection |
| | 13 = CA Oversight Inspection |

Facility Inspected As: S/T

LDF Trans GEN SQG NR

Facility Filed As: S/T LDF

Trans GEN SQG NR

7. Date of evaluation covered by this report

1/12/89

(If different from #5 above)

7a. Eval Comment: Inspected SI closure. Solidifying sludge,
dewatering other SI.

8. CLASS AND VIOLATIONS

Key:

- X = Violations, no specialties
B = Violations and specialty
S = Same violation or specialty
Z = Pending determination
O = No violation or specialty found

SPECIALTIES:

- I = No insurance only
C = CA Schedule Violation
H = High Priority Violation
* = Class I only

VIOLATIONS AND RELEASES

GWM	C/PC	FIN	PT B	CMPL	MAN	OTH	L BAN	
	O							class one
	O							class two
X	X	X	X	X	X	X	X	
S	S	S	S	S	S	S	S	
Z	Z	Z	Z	Z	Z	Z	Z	
O	O	O	O	O	O	O	O	
H	H	H	H	H	H	H	H	
		I*		C				
		B*		B				

8a. Viol. Comment:

RESP AGENCY: E = USEPA
S = STATE
X = OVERSIGHT

9. ENFORCEMENT ACTIONS

CLASS	AREA OF VIOL.	ACTION TYPE	DATE OF ACTION	COMPL SCHED	COMPL ACTUAL	PENALTY ASSESSED	PENALTY COLLECTED	RESP AGENCY

Codes for Types of Enforcement Actions:

- 01 = Interim Status Compliance Letter
02 = 3007 Information Request
03 = Warning Letter
04 = Administrative Complaint
05 = Final Administrative Order
06 = 3013 Admin Order (initial) /State equiv.
07 = 3013 Admin Order (final) /State equiv.

- 08 = 7003 Admin Order / State equiv.
10 = Informal Action
11 = Filed Civil Action
12 = Filed Criminal Action
13 = NOV to State (Viol ref'd for St action)
14 = NOV to EPA (Viol ref'd for EPA action)
15 = CA Initial Administrative Order
16 = CA Final Administrative Order

- 17 = CERCLA 106 Admin Order (EPA)
18 = Civil Referral to St AG / USDOD
19 = Final Judicial Order
20 = CERCLA 106 fund financed activity
21 = Notice of Non-compliance
22 = Fed. Facility Compliance Agreement
23 = Fed Facility Referral to USEPA HQ
85 = Insp. referred to USEPA (land ban)

10. Enforcement Comment:

DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE DIVISION

STAFF REPORT

PAGE ____ OF ____

Mid 214

DAY

S	M	T	W	TH	F	S

- ☐ Complaint Inspection
☐ Compliance Inspection
☐ Construction Inspection
☐ Permitting Inspection
☐ PEAS Investigation

- ☐ PCB Report/Complaint
☐ Sampling Inspection
☒ Telephone Call
☐ Meeting Notes
☐ Other _____

WEATHER

TEMP

WIND

HUMIDITY

Brite Sun	Clear	Overcast	Rain	Snow
To 32	32-50	50-70	70-85	85 up
Still	Moder.	High	Report No.	
Dry	Moder.	Humid.		

☐ Act 64 _____

☐ Act 136 _____

☐ Act 245 _____

☒ RCRA _____

DATE

2-7-89

TIME

11:30 AM

COMPANY/FACILITY

Quanex Corporation, Michigan Seamless Tube Div

ADDRESS/LOCATION

470 McMunn Street, South Lyon, Mi.

FACILITY NO.

MID OF 2767 591

STAFF

Shel

PARTICIPANTS

Eileen Reagen

I called Eileen Reagen, the U.S. EPA's consultant reviewing Quanex's delisting petitions, to verify the status of the petitions per Scott Maides' (U.S. EPA) recommendation. Mrs. Reagen indicated that they were proceeding with denial of the petitions. Mrs. Reagen also indicated that neither she nor EPA had received the "K062 Delisting Petition for the Supplemental Information of The Quanex Michigan Seamless Tube Division" document, submitted to the MDNR on January 5, 1989.

SIGNED

Ronda L. Hill

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Northville Agency King

DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE DIVISION

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DAY

PAGE ____ OF ____

STAFF REPORT

FFB 02 1989

WASTE MANAGEMENT

WEATHER

Clear	Overcast	Rain	Snow
32-50	50-70	70-85	85 up
Still	Mod.	High	Report No.
Dry	Mod.	Humid.	

WIND

HUMIDITY

- ☐ Complaint Inspection
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- ☐ Construction Inspection
- ☐ Permitting Inspection
- ☐ PEAS Investigation

- ☐ PCB Report/Complaint
- ☐ Sampling Inspection
- ☐ Telephone Call
- ☐ Meeting Notes
- ☒ Other Site Inspection / Visit

☒ Act 64

☐ Act 136

☐ Act 245

☒ RCRA

DATE

1-27-89

TIME

10:00 AM

COMPANY/FACILITY

FACILITY NO.

ADDRESS/LOCATION

STAFF

PARTICIPANTS

Zuarex Corp. - Michigan Seamless Tube
400 W. Main Street, South Lyon, Michigan
Don Comfort, Will Brans (Zuarex); Kate Lynam, Jim Trotter (EDI); GLEB Rep.
Conducted a site visit to inspect the sludge storage area, the sludge drying beds, and the two surface impoundments at the facility. The sludge storage area sludge activities had been completed and company is waiting for analytical results from soil analysis. The sludge drying beds on the west-southwest corner of the site were observed also. The two surface impoundments were also observed. The roughing impoundment was partially excavated and the sludge stockpiled in the southeast corner of the impoundment. The southwest corner of the roughing impoundment where the drums and sludged soil were discovered had been segregated. No activities had been initiated in the finishing impoundment at the time of the site visit. Zuarex is waiting for approval from MDNR to dispose of the sludge in the roughing impoundment. Sludge is proposed to be disposed of at BFI, a type II landfill. Once Zuarex submits metals data from the 12-21-88 sampling date, the MDNR will issue guidance regarding sludge disposal. EDI indicated these results would be sent to MDNR during the week of 1-30-89. Once sludge is removed, EDI and Zuarex indicated that they would develop a work plan to address the remaining.

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HAZARDOUS WASTE DIVISION

STAFF REPORT

PAGE ____ OF ____

DAY	S	M	T	W	TH	F	S
						X	

- ☐ Complaint Inspection
☐ Compliance Inspection
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☐ Meeting Notes
☒ Other Site Inspection/Visit

WEATHER

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Dry	Moder.	Humid.		

- ☒ Act 64
☐ Act 136

- ☐ Act 245
☒ RCRA

DATE	TIME
1-27-89	10:00 AM

COMPANY/FACILITY Quarx Corp. - Michigan Seamless Tube FACILITY NO. MID 082 767591

ADDRESS/LOCATION Buda, Hall, Clayton

PARTICIPANTS Confort, Evans, Lyness, Tolbert, MLES Rep.

issues at the site (sludge drying beds, groundwater contamination, and cleanup of dunes and mined soil). Consent Agreements were discussed briefly as was the authority of HSWA and Act 245. It was decided that it would be best to develop a comprehensive plan which addresses clean-up of the entire site. Once EDI and Quarx Corp. develop a work plan, the MDNR will meet with them to discuss proposals and develop a comprehensive approach to cleaning up the site.

SIGNED

Ronda L. Hall

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DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE DIVISION

STAFF REPORT

PAGE ____ OF ____

rec'd 2/14

DAY

S	M	T	W	TH	F	S
	X					

- ☐ Complaint Inspection
- ☐ Compliance Inspection
- ☐ Construction Inspection
- ☐ Permitting Inspection
- ☐ PEAS Investigation

- ☐ PCB Report/Complaint
- ☐ Sampling Inspection
- ☒ Telephone Call
- ☐ Meeting Notes
- ☐ Other _____

WEATHER

TEMP

WIND

HUMIDITY

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To 32	32-50	50-70	70-85	85 up
Still	Mod.	High	Report No.	
Dry	Mod.	Humid.		

☐ Act 64

☐ Act 136

☐ Act 245

☒ RCRA

DATE

Z-6-89

TIME

4:00 PM

COMPANY/FACILITY

FACILITY NO.

ADDRESS/LOCATION

STAFF

PARTICIPANTS

Quannex Corporation - Michigan Township, Michigan
706 North Main Street, Northville, Michigan
Scott Maide - U.S. EPA

of placed Scott Maide today to check on the status of Quannex Corporation's delisting petitions (#0633A and #0633B) regarding their K062 waste, spent pickle liquor waste. He indicated the U.S. EPA had notified the company of their recommendation for petition denial to the administrator. This notification was done through a letter dated August 24, 1988. The letter gave the company the opportunity to respond to the recommendation for denial prior to the Federal Register proposed denial publication. The company failed to respond. Mr. Maide indicated that the U.S. EPA conducted several reviews to review delisting petitions and that Quannex's were not at the top of the list. The U.S. EPA receives status reports on the petitions every two weeks. Information regarding the petitions was from the August 24, 1989 status report. Mr. Maide stated that the U.S. EPA was still recommending denial and that the proposed denial should appear in the Federal Register this summer at the earliest. A 45 day comment period follows publication. Mr. Maide indicated that a final decision on the petitions would not probably be reached until early 1990, at least. The individuals reviewing the petitions are Jennifer (H7/project officer, 703-734-3143) and Bill Page (H7/inspector, 703-734-4344).

SIGNED: [Signature]

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Northville, Lynne King

DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE DIVISION

STAFF REPORT

PAGE ____ OF ____

DAY

S	M	T	W	TH	F	S
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- ☐ Complaint Inspection
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- ☐ PCB Report/Complaint
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☐ Meeting Notes
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WEATHER

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To 32	32-50	50-70	70-85	85 up
Still	Moder.	High	Report No.	
Dry	Moder.	Humid.		

☐ Act 64

☐ Act 136

☐ Act 245

☒ RCRA

DATE	TIME
12-27-88	3:00

COMPANY/FACILITY

General Location - Michigan - Hamiltonville

FACILITY NO.

1127052 11754

ADDRESS/LOCATION

400 W. Main St. - Hamiltonville

STAFF

John F. Hall

PARTICIPANTS

John F. Hall - E.D.I. Will Pross - Bureau of Health - 1104

of spoke with Will Pross and John F. Hall regarding

Bureau and the site visit scheduled for 12-27-88.

I informed Mr. Pross that I had not provided a

work sheet for the site visit data regarding

the area in which buried drums and debris had been dis-

covered during excavation of the surface improvements. He

indicated that a report regarding this issue. Mr. Pross

indicated that a report providing a summary of the facility's

history, a description of closure related activities conducted to date,

evidence in support of a delisting petition, and a proposal for further

investigation and closure activities to be conducted at the facility

would be submitted to the MDNR in approximately one and a half weeks.

Mr. Pross also indicated that a field trip would be taken by E.D.I. had

taken four additional work samples from the site on

12-21-88. There are currently 101/102 series

of drums and total initial volume of the samples.

Sample analysis results should be ready in 1-11-89 and total

volume of drums should be ready in 1-11-89. The

results of the analysis should be ready in 1-11-89. The

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DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE DIVISION

PAGE ____ OF ____

STAFF REPORT

DAY	S	M	T	W	TH	F	S
			X				

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☐ Other _____

WEATHER
TEMP
WIND
HUMIDITY

Brite Sun To 32	Clear 32-50	Overcast 50-70	Rain 70-85	Snow 85 up
Still	Moder.	High	Report No.	
Dry	Moder.	Humid.		

☒ Act 64
☐ Act 136

☐ Act 245
☒ RCRA

DATE 12-27-88 TIME 3:00 p.m.

COMPANY/FACILITY

Quarantex Corporation - Michigan, located at Lake

ADDRESS/LOCATION

4100 W. Main Street, South Lyon

FACILITY NO.

MID 082767591

STAFF

Randa K. Hall - WMD

PARTICIPANTS

Will Thomas - Quarantex, Kate Lyness - EDI, Randa Hall - WMD

Kim Hixie and get back with her. Mr. Lyness indicated that the additional sludge samples, had not been analyzed for characteristics since 9 or 10 E.P. Toxic analysis results are available for the sludge and 8 analysis results are available for the other three hazardous waste characteristics. In addition, EDI's field technician took PVC readings in the vicinity of the buried drums and came up with virtually nothing according to Lyness. Due to the unavailability of supplemental information regarding this issue and Dave Hixie, the geologist assigned to the project, it was determined that a site visit at this time would be premature. A site visit will be scheduled for the third week of January, which will allow the MNR to adequately review EDI's report and the organic data from the additional sludge samples. Both Quarantex and EDI will be informed of the new date. I questioned Mrs. Lyness regarding the buried drums and debris issues. She indicated that the drums were badly corroded and mostly drum fragments had been recovered. The drums were found in the area along with a material with appearance of white.

SIGNED

Randa K. Hall

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DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE DIVISION

STAFF REPORT

PAGE ____ OF ____

DAY	S	M	T	W	TH	F	S

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Dry	Moder.	Humid.		

☒ Act 64

☐ Act 136

☐ Act 245

☒ RCRA

DATE

12-27-88

TIME

3:10 PM

COMPANY/FACILITY

Dunbar Corporation - Michigan Industrial Tube

FACILITY NO.

MID CR2 767591

ADDRESS/LOCATION

4111 1/2 Main Street, South Lyon

STAFF

Ronda L. Hall - LMD

PARTICIPANTS

Bill Evans - Dunbar, Kate Lynnes - EDT, Ronda

Went. They have no known source of the contamination at this time. We are especially concerned if a listed waste is the source. Ms. Lynnes stated that in the past the company used demersing solvents in a contract at Fort Le Miley and that may be a potential source of the 1,1-DCA contamination that has been identified. Ms. Lynnes indicated that the area in question was probably the site of a past solid waste dump. She also indicated that contamination was discovered in an area south of the near Yorkes Drain by K&K Consulting during a separate investigation. All of this information is to be included in EDT's submittal to the MDNR according to Lynnes. Ms. Lynnes stated that they were proposing to implement a more intensive hydrogeo. investigation and would like to handle this under Act 245 with the state rather than through correction action and HSWA under the US EPA. With the sludge being classified as a type II waste. She was informed that no decision regarding the proper disposal of any of the material could be made at this time.

SIGNED

T. J. Hall

Distribution: Original - District/Lansing File
1st copy - Lansing File/District
2nd copy - Inspector Wall

WMD - Northville
FYI - Rhonda
2/10/89

EDI Engineering & Science

Environmental Engineering,
Geology, Biology and Chemistry



February 2, 1989

RECEIVED

FEB 03 1989

Ms. Rhonda Hall
Michigan Department of Natural Resources
Waste Management Division
Ottawa Street Building, South Tower
P.O. Box 30028
Lansing, Michigan 48909

Waste Management
Division

RE: QUANEX IMPOUNDMENT CLOSURE-BERM INVESTIGATION
(MID 082 767 591)

Dear Ms. Hall:

During the initial excavation of the solidified sludge at the southwest end of the roughing lagoon, an area of debris was discovered in the berm separating the roughing lagoon and the finishing lagoon. The debris included steel tubing and cables and rusted drums. The debris area extends approximately 180 feet north from the south end of the lagoons. The debris area also appears to extend to the western berm of the finishing lagoon where black sludge was discovered when a concrete abutment was removed from the berm. There are no records on what types of waste were disposed of in this area, but historic solid waste disposal activities near the impoundments may be the source of the debris.

On December 20, 1988 six soil samples were taken from the debris area within the berm, three samples from the stockpiled solidified sludge, and two soil samples from the western berm of the finishing lagoon. A ground water sample was also taken from the excavation adjacent to the debris area. The samples were analyzed for volatile organic scans 601 and 602. Total metals were also analyzed in the soil samples for ten trace metals. Sampling locations and pertinent analytical results are provided in Figure 1. The complete listing of analytical results are provided in Attachment I.

Only six of the total twelve samples were found to contain volatile organic constituents. These six samples contained low levels of toluene. Two of the six samples also contained low levels of 1,1,1-trichloroethane (TCA). One of the six samples, sample R-4 (see Figure 1), was taken of the white paint sludge-like material that was observed near one of the rusted drums. It is likely that the source of toluene and TCA may be related to the sludge which appears to have originated from the drums. Because the rusted drums account for only a small portion of the debris, the extent of any organic contamination is limited. The one ground water sample did not have detectable levels of any volatile organic constituents.

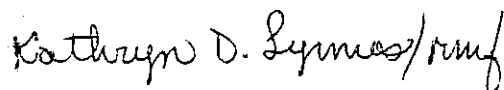
All twelve samples were analyzed for total metals. Except for chromium and lead, none of the metals analyzed for exceeded 20 times the E.P. Toxicity levels. Because the total metal results for chromium and lead exceeded 20 times their E.P. Toxicity levels, an E.P. Toxicity analyses were performed on all soil samples for chromium and lead. However, the results of the E.P. toxicity analyses demonstrate that none of the soil samples are E.P. toxic as defined in 40 CFR 261.24. The results of the E.P. toxicity analyses are summarized in Figure 1. Analytical results are provided in Attachment I.

Based on the analytical results provided above and because the source or sources of the debris cannot be clearly identified, soil or sludge removed from the debris area in the impoundment berms would be defined as non-hazardous Type II waste. The MDNR has agreed to Type II characterizations under similar circumstances in the past. The stockpiled sludge and the soils and sludges from the berm will be disposed of as Type II wastes, pending MDNR approval.

If you have any questions call me at (616) 942-9600 or (616) 940-4265.

Sincerely,

EDI ENGINEERING & SCIENCE



Kathryn D. Lynnes
Project Manager
Environmental Compliance

Encl.

cc: Don Comfort, Quanex
Jim Fausone, Dykema Gossett

NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON
MARLENE J. FLUHARTY
GORDON E. GUYER
KERRY KAMMER
O. STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE

STATE OF MICHIGAN



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
P.O. BOX 30028
LANSING, MI 48909

DAVID F. HALES, Director

RECEIVED

FEB 22 1989

WASTE MANAGEMENT DIV.

February 9, 1989

Mr. Donald Comfort, P.E.
Engineering Manager
Quanex Corporation
Michigan Seamless Tube Division
400 McMunn Street
South Lyon, Michigan 48178

Dear Mr. Comfort:

Subject: Closure of Surface Impoundments
Quanex Corporation, Michigan Seamless Tube Division
MID 082 767 591

The Waste Management Division (WMD) of the Michigan Department of Natural Resources (MDNR) has reviewed the information that Quanex Corporation submitted on February 3, 1989, regarding the surface impoundments at the facility. Based on a review of the lime stabilized waste pickle liquor sludge (LSWPLS) analytical results, the WMD hereby approves the Type II waste classification for the LSWPLS. Quanex Corporation may excavate down to the soils that underlay the roughing and finishing surface impoundments only, and must dispose of the LSWPLS from the surface impoundments at a licensed Type II solid waste management facility. If you contemplate disposing of this material at a facility located outside of Oakland County, you must first contact the receiving county's Solid Waste Planning Agency to verify that disposal of out-of-county waste is allowed under the county's solid waste management plan.

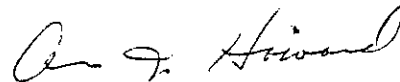
The soil and sludge containing debris that is located in the impoundment berms must be left in place, pending MDNR authorization for proper disposal. Any soil and sludge containing debris that is encountered during further excavation of the LSWPLS from the roughing and finishing surface impoundments must also be left in place.

Quanex Corporation must notify Waste Management Division Detroit District staff (313-344-4670) and Lansing Hazardous Waste Permits Unit staff (517-373-2730) at least two days prior to the initiation of sludge excavation and removal.

February 9, 1989

If you have any questions, please contact Ms. Ronda L. Hall of my staff at 517-373-9548.

Sincerely,

A handwritten signature in cursive script, appearing to read "Alan J. Howard".

Alan J. Howard, Chief
Waste Management Division
517-373-2730

cc: Ms. Marilyn Sabadaszka, U.S. EPA
Mr. Richard Traub, U.S. EPA
Mr. Kenneth Burda, DNR/C&E File
Ms. Ronda L. Hall, DNR
Ms. Lynne King, DNR

Quanex Corporation
Michigan Seamless Tube Division
400 McMunn
South Lyon, Michigan 48178
(313) 437-8117



Michigan Seamless
Tube Division

December 19, 1988

Mr. Kenneth J. Burda, Chief
Hazardous Waste Permits Section
Waste Management Division
State of Michigan
Department of Natural Resources
P.O. Box 30028
Lansing, Michigan 48909

SUBJECT: Closure of Surface Impoundments
Sludge Samples
MID 082-767-591

Dear Mr. Burda:

Enclosed are the analytical results of the sludge samples which were collected on December 14, 1988. The attached drawing shows the location of the samples and details the sampling sequence. Two adjacent samples, SE-2 and SW-1, have flash points which are less than 80 degrees F. We believe that these are due to underlying soil contamination which we discovered while stockpiling solidified sludge on December 14, 1988.

On that date the excavation revealed steel tubing and rusted barrels at a point close to sample SW-1. The barrels were buried in the wall of the impoundment approximately 8 to 10 feet below the top of the surface impoundment. Excavation in this area was stopped when the barrels were discovered. We have arranged for EDI Engineering and Science to sample the soils in this area on December 20, 1988, and to determine the extent of the unexpected contamination. Volatile organic scans 601 and 602 will be performed on the gathered samples.

The detected contamination appears to be isolated to the south west corner of the impoundments as the other six samples had flash points above 200 degrees F. No other hazardous characteristics were detected in the samples.

RECEIVED
JAN 01 1989
REGIONAL HEADQUARTERS

RECEIVED

DEC 21 1988

Waste Management
Division

December 19, 1988

Mr. K. Burda

Page Two

We have been stockpiling the solidified sludge pending disposal approval from your office. To date we have accumulated about 10,000 tons. The sludge contains no EPTOX metals to classify it as hazardous. However, we need some guidelines from your office regarding disposal of this material.

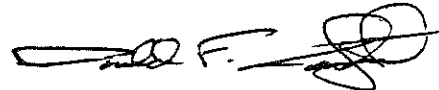
Quanex will clean up this unexpected contaminated soil and would welcome a visit from the Michigan DNR to show you first hand that the problem now appears to be isolated to one area. Removal of the solidified sludge will allow us to determine if any other contamination exists in the underlying soils.

If you have any questions, or would like to set up a meeting with us, please call me at (313) 437-8117.

Yours truly,

QUANEX CORPORATION

Michigan Seamless Tube Division

A handwritten signature in black ink, appearing to read 'Donald F. Comfort', with a stylized flourish at the end.

Donald F. Comfort, P.E.
Engineering Manager

DFC:kb

cc: J. J. Yetso
C. D. Simpson

DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE DIVISION

RECEIVED

STAFF REPORT

DAY

S	M	T	W	TH	F	S
---	---	---	---	----	---	---

- ☐ Complaint Inspection
☐ Compliance Inspection
☐ Construction Inspection
☐ Permitting Inspection
☐ PEAS Investigation

☐ PCB Report/Complaint
☐ Sampling Inspection
☐ Telephone Call
☐ Meeting Notes
☐ Other _____

WEATHER

TEMP

WIND

HUMIDITY

Brite Sun	Clear	Overcast	Rain	Snow
To 32	32-50	50-70	70-85	85 up
Still	Modér.	High	Report No.	
Dry	Modér.	Humid.		

- ☒ Act 64 _____ ☐ Act 245 _____
☐ Act 136 _____ ☒ BCRA _____

DATE 12/15/11	TIME 1:00 PM
------------------	-----------------

COMPANY/FACILITY

COMPANY/FACILITY
Quincy Corporation

FACILITY NO.

ALB 082 767 591

ADDRESS/LOCATION

ADDRESS/LOCATION
400 W. Main St. South Lyon

STAFF	
-------	--

1. 1. The first

PARTICIPANTS

PARTICIPANTS
Helen Renda (1941) and Kate Lomax, EDI

Kate Symons of EDI called Mr. Bunda and asked a review of the surface improvements at Quarex. Kate explained that Ms. Symons did not feel it was necessary to haul the sludge via the truck barge for an on-site waste stabilization and off-site disposal. However, Mr. Bunda explained that the closure plan, approved by the MDNR on September 24, 1987, explicitly stated that the sludge must be hauled to characteristics. EDI was initially hired by Quarex to develop the closure plan, and for an additional 10% oversee operations during closure. Quarex then hired Great Lakes to conduct the actual closure measures and oversaw the process themselves. Great Lakes did not do so in strict accordance with the approved closure plan. Approximately four feet of dewatered sludge remained in the bargons and was very difficult to handle. Mr. Bunda informed Mr. Symons that they could load the sludge in tankers while analysis of the material was done on shore and then transport it to a highly regulated off-shore landfill facility. The company had EDI are exploring their options.

SIGNED

Distribution: Original - District/Lansing _____ File.
1st copy - Lansing _____ File/District
2nd copy - Inspector _____

R

STATE OF MICHIGAN

NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON
MARLENE J. FLUHARTY
GORDON E. GUYER
KERRY KAMMER
ELLWOOD A. MATTSO
O. STEWART MYERS
RAYMOND - POUPORE



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
P.O. BOX 30028
LANSING, MI 48909

DAVID F. HALES, Director

February 1, 1990

Mr. Donald Comfort, P.E.
Quanex Corporation
400 McMunn
South Lyon, Michigan 48178

Dear Mr. Comfort:

SUBJECT: Annual Groundwater Report MID 082 767 591

Your facility is listed as a Land Disposal Facility and as such is regulated under Michigan Act 64, P.A. 1979, as amended, and the Federal Resource Conservation and Recovery Act (RCRA) regulations. This letter is a reminder that the annual groundwater report required under 40 CFR 265.94(a)(2)ii-iii and 265.94(b)(2) for 1989 data is due March 1, 1990. Please send three copies of the report to:

H.W. Geotechnical Support Unit
Waste Management Division
Michigan Department of Natural Resources
P.O. Box 30241
Lansing, Michigan 48909

If it is your company's position that an annual report is not required, please respond with a letter stating the reason. The Waste Management Division will then confirm and update our files, or notify you if we need more information or disagree.

If there are any questions, please contact me.

Sincerely,

David Slayton
Waste Management Division
517-373-2730

cc: C & E File
De Montgomery/Geotech File
District Office



NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON
MARLENE J. FLUHARTY
GORDON E. GUYER
KERRY KAMMER
O. STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
P.O. BOX 30028
LANSING, MI 48909

DAVID F. HALES, Director

RECEIVED

DEC 08 1988

WASTE MANAGEMENT DIV.

November 29, 1988

Mr. Donald Comfort
Engineering Manager
Quanex Corporation
Michigan Seamless Tube Division
400 McMunn Street
South Lyon, Michigan 48178

Dear Mr. Comfort:

SUBJECT: Closure of Surface Impoundments
Quanex Corporation, Michigan Seamless Tube Division
MID 082 767 591

The Waste Management Division (WMD) of the Michigan Department of Natural Resources has reviewed Quanex Corporation's November 2, 1988 letter requesting an extension of the time allowed to close the two surface impoundments at its facility. The letter stated that the request was submitted because the U.S. Environmental Protection Agency (U.S. EPA) is still evaluating delisting petitions filed by the company for the facility's K062 treatment plant effluent and the two surface impoundments that accept the effluent, and that the result of the evaluation would determine how any excavated contaminated soils must be disposed of.

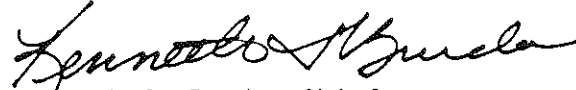
The WMD contacted U.S. EPA offices in Chicago and Washington D.C. to determine the status of the delisting petitions, Nos. 0633A and 0633B. The U.S. EPA indicated that the agency was in the process of denying both delisting petitions "based on the evaluation of groundwater monitoring data received from State and EPA Regional authorities and collected during the Delisting Program's spot-check sampling visit (August 26, 1987)" to the facility. The U.S. EPA notified Quanex Corporation of the recommendation to deny the petitions on August 24, 1988 and did not receive a response from the company.

Based on information received from the U.S. EPA, the WMD hereby disapproves the extension request. Quanex Corporation must proceed to close the surface impoundments immediately in accordance with the approved closure plan. Excavation of the contaminated soils underlying the surface impoundments must not be delayed until final disposition of the delisting petitions.

Mr. Comfort
Page 2
November 29, 1988

If you have any questions, please contact Ms. Ronda L. Hall at
517-373-9548.

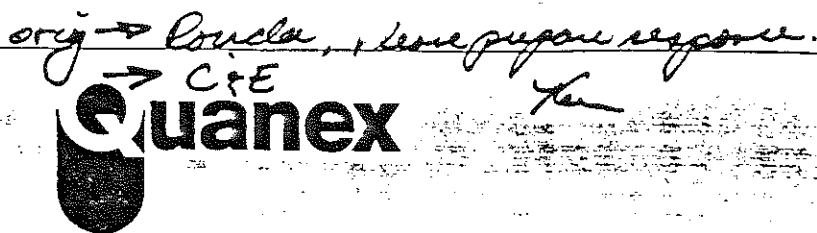
Sincerely,

A handwritten signature in cursive script, appearing to read "Kenneth J. Burda".

Kenneth J. Burda, Chief
Hazardous Waste Permits Section
Waste Management Division
517-373-2730

cc: Ms. Marilyn Sabadaszka, U.S. EPA
Mr. Richard Traub, U.S. EPA
Ms. Ronda L. Hall, MDNR/C&E File
Ms. Lynne King, MDNR

Quanex Corporation
400 "C" Munn
Sc Lyon, Michigan 48178
(313) 437-1715



November 2, 1988

RECEIVED

Mr. Ken Burda
Waste Management Division
Michigan Department of Natural Resources
Ottawa Building, South
First Floor
Box 30028
Lansing, Michigan 48909

NOV 03 1988

Waste Management
Division

RECEIVED

NOV 22 1988

WASTE MANAGEMENT DIV.

RE: QUANEX CORPORATION CLOSURE PLAN (MID 082 767 591)

Dear Mr. Burda:

As per your phone conversation with Kate Lynnes from EDI last week, we are requesting a closure time extension for the two surface impoundments at Quanex under 40 CFR 264.113. This extension is requested because the U.S.EPA is still evaluating the delisting petition for the K062 treatment plant effluent. The results of this evaluation will determine how any excavated contaminated soils must be disposed of.

All other closure activities will proceed according to the schedule outlined in the approved closure plan. The new wastewater treatment plant will be completely operational by November 7, 1988 and K062 wastes will no longer be discharged to the impoundments after that date. All liquid wastes will be discharged to Yerkes Drain under Quanex's NPDES permit. After the impoundments have been drained, the non-hazardous sludge will be removed, dewatered, and disposed of at a Type II landfill. The underlying soils will then be sampled in accordance with the closure plan. If the statistical evaluation of the analytical results indicates that contamination is present, excavation will be delayed until the final disposition of the delisting petition.

Thank you for your consideration. Please contact Kate Lynnes at 616/942-9600 or myself if you have any questions.

Sincerely,



Don Comfort
Engineering Manager
Quanex Corporation
Michigan Seamless Tube Division

cc: Jim Fausone, Dykema Gossett (Detroit)

27 NOV 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Wayne M. Rose
Quanex Corporation
Michigan Seamless
Tube Division
1900 W. Loop South, Suite 1500
Houston, Texas 77027

Re: Michigan Seamless Tube Div.
South Lyons, Michigan
MID 082 767 591

Dear Mr. Rose:

The above named facility is a hazardous waste treatment, storage or disposal facility under the Resource Conservation and Recovery Act, as amended (RCRA). The above facility is subject to financial responsibility requirements as provided in 40 CFR 265 Subpart H.

Please submit the Auditor's Report on examination of the financial statements for the latest fiscal year as it was not enclosed your May 7, 1985, letter from the Chief Financial Officer. forward this report within 30 days to:

Sharon R. Johnson
U.S. EPA - 5HE-12
230 S. Dearborn Street
Chicago, Illinois 60604

If you have any questions or desire additional information, Sharon R. Johnson at (312) 886-4581.

Sincerely,

ORIGINAL SIGNED BY
WILLIAM E. MUNO

William E. Muno, Chief
RCRA Enforcement Section

SJOHNSON:srj:5HE-11-27-85

5HE-12
P 203 688 864
RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Wayne M. Rose	
STREET AND NO.		Quanex Corp.	
P.O., STATE AND ZIP CODE		1900 W. Loop South, Suite 1500 Houston, TX 77027	
POSTAGE		\$ 22	
CERTIFIED FEE		75 ¢	
SPECIAL DELIVERY		¢	
RESTRICTED DELIVERY		¢	
SHOW TO WHOM AND DATE DELIVERED		¢	
SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY		¢	
SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY		70 ¢	
SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY		¢	
TOTAL POSTAGE AND FEES		\$ 167	
POSTMARK OR DATE			

CHICAGO ILL 203 688 864 1985
USPO

S. Johnson
PS Form 3800, Apr. 1976 Michigan Seamless Tube Div.
MID 082 767 541

INT. DATE	TYPIST	AUTHOR	OTHER STAFF	UNIT CHIEF	SECT. SEC'Y	SECT. CHIEF	HWER CHIEF	WRMD DIR
	RL	11-27-85		RL		WEH 11-27-85		

INTERNATIONAL TRADE SERVICES

MAY 9 1985

✓ REGIONAL ADMINISTRATOR REGION V
U.S. ENVIRONMENTAL PROTECTION AGENCY
250 SOUTH DEARBORN
CHICAGO, ILLINOIS 60604
ATTN: GEORGE HAMPER


RE: EPA IDENTIFICATION NO. MID08276754 OUR LETTER OF CREDIT NO.
00305589 ISSUED IN YOUR FAVOR FOR ACCOUNT OF QUANEX
CORPORATION-MICHIGAN SEAMLESS TUBE DIVISION, 400 MCMUNN STREET,
SOUTH LYON, MICHIGAN FOR U.S. DOLLARS 2,044,096.00 ON SEPTEMBER
20, 1984 AND EXPIRING ON SEPTEMBER 20, 1985.

DEAR SIRs,

THIS LETTER IS TO SERVE NOTICE THAT WE HAVE CHOSEN NOT TO
EXTEND THE ABOVE LETTER OF CREDIT FOR ANY ADDITIONAL PERIOD.
OUR LIABILITY CEASES UPON EXPIRATION. PLEASE SIGN AND RETURN
THE ATTACHED COPY OF THIS LETTER IN THE ENVELOPE PROVIDED.

YOURS VERY TRULY

THE FIRST NATIONAL BANK OF CHICAGO


AUTHORIZED SIGNATURE

RECEIPT ACKNOWLEDGED:
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION V

REGIONAL ADMINISTRATOR

CC: QUANEX CORPORATION
1900 WEST LOOP SOUTH
SUITE 1500
HOUSTON, TX 77027
ATTN: GARY L. HELLNER

CC: QUANEX CORPORATION
MICHIGAN SEAMLESS TUBE DIVISION
400 MCMUNN STREET
SOUTH LYON, MICHIGAN

RECEIVED

MAY 14 1985

SOLID WASTE BRANCH
U.S. EPA, REGION V

ORIGINAL

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

10 DEC 1985

Mr. John Selepec
Treasurer of Quanex
Corporation
1900 W. Loop South, Suite 1500
Houston, Texas 77027

Re: Michigan Seamless Tube Div.
South Lyons, Michigan
MID 082 767 591

Dear Mr. Selepec:

Per our telephone conversation of December 9, 1985, please find enclosed an example of the Independent Auditor's Report which is needed to complete the requirements mentioned in the above named facility. Perhaps this Special Report is found in your latest 10K Report.

If you have any questions or desire additional information, please contact me at (312) 886-4581.

Sincerely,

Sharon R. Johnson, EPS
U.S. EPA - 5HE-12

Enclosure

SJOHNSON:5HE-12:12-9-85

Quanex Corporation
400 McMunn
South Lyon, Michigan 48178
(313) 437-1715



January 25, 1985

TO: A/S
TO PART
B FIVE

Regional Administrator
Region 5
230 South Dearborn Street
Chicago, Illinois 60604

FROM: SITS-13
MI

RE: RCRA Financial Assurances

2-4-85

Dear Regional Administrator;

Michigan Seamless Tube, a division of Quanex Corporation, EPA I.D. No. MID 082767591 currently has on file a letter of credit for closure costs for its South Lyon facility. The letter of credit, issued by The First National Bank of Chicago, No. 00305589, dated September 20, 1984 is in the amount of \$2,044,096.00.

On December 5, 1984 the EPA delisted the primary waste generated by the South Lyon facility. That waste K062 and K063, was delisted in 49 Federal Register No. 109, p. 23284, dated June 5, 1984. As a result the closure costs for the facility have dramatically decreased to \$2,300.00. See Part B application filed on December 5, 1984.

Therefore, the company seeks written permission pursuant to CFR 264.143(d)(7) to reduce the amount of the letter of credit to the amount of the current closure cost estimate.

If there are any questions relative to processing and granting this request do not hesitate to contact my office.

Very truly yours,

QUANEX CORPORATION

Michigan Seamless Tube Division

A handwritten signature in blue ink, appearing to read 'R. E. Russell'.

R. E. Russell
General Manager

RER:kb

RECEIVED
JAN 29 1985

U.S. EPA, REGION V
WASTE MANAGEMENT DIVISION
OFFICE OF THE DIRECTOR

RECEIVED
JAN 29 1985

WASTE MANAGEMENT
BRANCH

Quanex Corporation
1900 West Loop South
Suite 1500
Houston, TX 77027
(713) 961-4600



RECEIVED

September 20, 1984

SEP 28 1984

U.S. EPA, REGION V
WASTE MANAGEMENT DIVISION
OFFICE OF THE DIRECTOR

Regional Administrator
Region V
230 South Dearborn Street
Chicago, IL 60604

RE: RCRA Financial Assurance for Closure

Dear Sir/Madam:

Enclosed is an originally signed duplicate of a Trust Agreement and an irrevocable Letter of Credit. These documents are submitted to assure closure costs of Quanex Corporation, Michigan Seamless Tube Division, 400 McMunn Street, South Lyon, Michigan, EPA ID # MID 082767591. The Letter of Credit is issued by First National Bank of Chicago, dated September 20, 1984 for \$2,044,096.00. *Major*

If you have any questions, do not hesitate to contact this office.

QUANEX CORPORATION

By: Patricia A. Test
Patricia A. Test

Its: Treasurer

Enclosures

RECEIVED
OCT 01 1984

WASTE MANAGEMENT
BRANCH



FIRST CHICAGO
The First National Bank of Chicago

TRADE SERVICES GROUP
ITE 0236
CHICAGO, ILLINOIS 60670 U.S.A.

Swift Address: FNBCUS44

Cable address: NATIONAL CHICAGO Telex number: 2-53801

STANDBY CREDIT

DATE: SEPTEMBER 20, 1984

M A I L

REGIONAL ADMINISTRATOR
REGION V
U.S. ENVIRONMENTAL PROTECTION AGENCY

DEAR SIR OR MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. 00305589 IN YOUR FAVOR, AT THE REQUEST AND FOR THE ACCOUNT OF QUANEX CORPORATION - MICHIGAN SEAMLESS TUBE DIVISION, 400 MCMUNN STREET, SOUTH LYON, MICHIGAN, UP TO THE AGGREGATE AMOUNT OF TWO MILLION FORTY-FOUR THOUSAND AND NINETY-SIX U.S. DOLLARS (US\$2,044,096.00), AVAILABLE UPON PRESENTATION OF

(1) YOUR SIGHT DRAFT, BEARING REFERENCE TO THIS LETTER OF CREDIT NO. 00305589, AND

(2) YOUR SIGNED STATEMENT READING AS FOLLOWS: "I CERTIFY THAT THE AMOUNT OF THE DRAFT IS PAYABLE PURSUANT TO REGULATIONS ISSUED UNDER AUTHORITY OF THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976 AS AMENDED."

THIS LETTER OF CREDIT IS EFFECTIVE AS OF SEPTEMBER 20, 1984 AND SHALL EXPIRE ON SEPTEMBER 20, 1985, BUT SUCH EXPIRATION DATE SHALL BE AUTOMATICALLY EXTENDED FOR A PERIOD OF ONE (1) YEAR ON SEPTEMBER 20, 1985 AND ON EACH SUCCESSIVE EXPIRATION DATE, UNLESS, AT LEAST 120 DAYS BEFORE THE CURRENT EXPIRATION DATE, WE NOTIFY BOTH YOU AND QUANEX CORPORATION BY CERTIFIED MAIL THAT WE HAVE DECIDED NOT TO EXTEND THIS LETTER OF CREDIT BEYOND THE CURRENT EXPIRATION DATE. IN THE EVENT YOU ARE SO NOTIFIED, ANY UNUSED PORTION OF THE CREDIT SHALL BE AVAILABLE UPON PRESENTATION OF YOUR SIGHT DRAFT FOR 120 DAYS AFTER THE DATE OF RECEIPT BY BOTH YOU AND QUANEX CORPORATION, AS SHOWN ON THE SIGNED RETURN RECEIPTS.

WHENEVER THIS LETTER OF CREDIT IS DRAWN ON UNDER AND IN COMPLIANCE WITH THE TERMS OF THIS CREDIT, WE SHALL DULY HONOR SUCH DRAFT UPON PRESENTATION TO US, AND WE SHALL DEPOSIT THE AMOUNT OF THE DRAFT DIRECTLY INTO THE STANDBY TRUST FUND OF QUANEX CORPORATION IN ACCORDANCE WITH YOUR INSTRUCTIONS.

WE CERTIFY THAT THE WORDING OF THIS LETTER OF CREDIT IS IDENTICAL TO THE WORDING SPECIFIED IN 40 CFR 264.151(D) AS SUCH REGULATIONS WERE CONSTITUTED ON THE DATE SHOWN IMMEDIATELY BELOW.

THIS CREDIT IS SUBJECT TO THE UNIFORM COMMERCIAL CODE OF THE STATE OF ILLINOIS.

VERY TRULY YOURS,

THE FIRST NATIONAL BANK OF CHICAGO


AUTHORIZED SIGNATURE

Pur

February 29, 1984

Mr. Mel Robinson
Project Engineer
Quanex, Michigan Seamless Tube Division
400 McMunn Street
South Lyon, Michigan 48178

MID082767591

Dear Mr. Robinson:

As part of our FY84 Hazardous Waste Management Cooperative Agreement with the U.S. EPA, we are obligated to review the adequacy of the closure and post-closure plans for all major hazardous waste treatment, storage and disposal facilities (TSDFs) in the state. All TSDFs which are licensed under 1979 PA 64, as amended, and those which are subject to the RCRA Part 264/265, Subpart F groundwater monitoring requirements, are defined as a major facility. EPA and the Department have also identified additional "major" facilities on the basis of the type and quantity of waste treated, generated or disposed of.


Your facility is considered a "major" facility. Therefore, please submit two up-to-date copies of your closure plan for your hazardous waste storage and treatment facilities by March 21, 1984.

The plan should be sent to the following address:

Hazardous Waste Division
Michigan Department of Natural Resources
P.O. Box 30038
Lansing, Michigan 48909

If you have questions regarding this letter, please contact Mr. Alan Howard, Chief of our Technical Services Section, at (517) 373-2730.

Sincerely,


Delbert Rector, Chief
Hazardous Waste Division
(517) 373-2730

pQuackenbush/vls
cc: U.S. EPA
District/Ken Burda

American International Companies

DETROIT BRANCH OFFICE
Suite 117
23800 Northwestern Highway
P. O. BOX C.S. 5058
Southfield, Michigan 48075
313/559-4700

July 6, 1982

Valas Adamkus
United States Environmental Protection Agency
Region 5
230 South Dearborn
Chicago, Illinois 60604

Re: Closure or Post Closure Insurance
for Quanex Corporation

MID 082 767 591
Dear Valas;

Please be advised that The National Union Fire Insurance Company is considering issuance of closure insurance conforming to the requirements of the Environmental Protection Agency.

Sincerely,

National Union Fire Insurance Company



Robert J. Hopkins III
Manager
Casualty & Excess Lines Dept.

cc: James Cunningham
Frank B. Hall & Co. of Mi, Inc.

RJH/mjl



Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER.
THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

NAME AND ADDRESS OF AGENCY
FRANK B. HALL & CO. OF MICHIGAN
100 Renaissance Center, Suite 3200
Detroit, Michigan 48243-1373
Mailing Address: P. O. Box 260-A
Detroit, Michigan 48232-0260
(313) 259-0200

COMPANIES AFFORDING COVERAGES

COMPANY LETTER A	(a CNA Company) Transportation Insurance Co.
COMPANY LETTER B	
COMPANY LETTER C	
COMPANY LETTER D	
COMPANY LETTER E	

NAME AND ADDRESS OF INSURED
Quanex Corporation, et al.
1900 West Loop South, Suite 1500
Houston, Texas 77027
Attn: Adrian D. Shelley
Assistant to the Treasurer

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE	Limits of Liability in Thousands (000)		
					EACH OCCURRENCE	AGGREGATE
A	GENERAL LIABILITY			BODILY INJURY	\$	\$
	<input checked="" type="checkbox"/> COMPREHENSIVE FORM	#CCP 001700952	12/31/84	PROPERTY DAMAGE	\$	\$
	<input checked="" type="checkbox"/> PREMISES—OPERATIONS	#RDX 1784484	12/31/84			
	<input checked="" type="checkbox"/> EXPLOSION AND COLLAPSE HAZARD			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$ 1,000	\$ 1,000
	<input checked="" type="checkbox"/> UNDERGROUND HAZARD			PERSONAL INJURY		\$ 1,000
	AUTOMOBILE LIABILITY			BODILY INJURY (EACH PERSON)	\$ 500	
	<input checked="" type="checkbox"/> COMPREHENSIVE FORM	#BUA 001700956	12/31/84	BODILY INJURY (EACH ACCIDENT)	\$ 1,000	
	<input checked="" type="checkbox"/> OWNED	#CCP 001700952 (Texas)	12/31/84	PROPERTY DAMAGE	\$ 100	
	<input checked="" type="checkbox"/> HIRED	#RDX 1784484	12/31/84	BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$	
	<input checked="" type="checkbox"/> NON-OWNED					
	EXCESS LIABILITY			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$	\$
	<input type="checkbox"/> UMBRELLA FORM					
	<input type="checkbox"/> OTHER THAN UMBRELLA FORM					
A	WORKERS' COMPENSATION and EMPLOYERS' LIABILITY	#WC 001700944 - All States #WC 001700948 - California	12/31/84 12/31/84	STATUTORY	\$ 100,000 (EACH ACCIDENT)	
A	OTHER Automobile Physical Damage Coverage	#BUA 001700956 #CCP 001700952	12/31/84 12/31/84	No Deductible-ACV Comprehensive \$100 Deductible-Collision		

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES

Pollution Liability: Sudden & Accidental, \$1,000,000 Each Occurrence
\$2,000,000 Aggregate

Cancellation: Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail 10 days written notice to the below named certificate holder, but failure to mail such notice shall impose no obligation or liability of any kind upon the company.

NAME AND ADDRESS OF CERTIFICATE HOLDER:

R.C.R.A. Region 5
230 South Dearborn
P.O. Box A-3857
Chicago, Ill. 60690
pf

DATE ISSUED: 12-22-83pf

James A. Cunningham
AUTHORIZED REPRESENTATIVE
James A. Cunningham

Certificate of Insurance



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THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

NAME AND ADDRESS OF AGENCY

FRANK B. HALL & CO. OF MICHIGAN
100 Renaissance Center, Suite 3200
Detroit, Michigan 48243
Mailing Address: P. O. Box 260-A
Detroit, Michigan 48232

NAME AND ADDRESS OF INSURED

Quanex Corporation, et al.
Michigan Seamless Tube Division
400 McMunn Street
South Lyon, Michigan 48178

COMPANIES AFFORDING COVERAGES

COMPANY LETTER **A** The Home Insurance Company
COMPANY LETTER **B** National Union Fire Insurance Co.
COMPANY LETTER **C**
COMPANY LETTER **D**
COMPANY LETTER **E**

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE	Limits of Liability in Thousands (000)		
					EACH OCCURRENCE	AGGREGATE
A	GENERAL LIABILITY					
	<input checked="" type="checkbox"/> COMPREHENSIVE FORM	GA 99-67-71 (Texas)	12-31-82	BODILY INJURY	\$	\$
	<input type="checkbox"/> PREMISES—OPERATIONS			PROPERTY DAMAGE	\$	\$
	<input type="checkbox"/> EXPLOSION AND COLLAPSE HAZARD					
	<input type="checkbox"/> UNDERGROUND HAZARD	GL 99-40-88 (All Other)	12-31-82	BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$ 1,000	\$ 1,000
	<input type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS HAZARD					
	<input type="checkbox"/> CONTRACTUAL INSURANCE					
	<input type="checkbox"/> BROAD FORM PROPERTY DAMAGE					
	<input type="checkbox"/> INDEPENDENT CONTRACTORS					
	<input type="checkbox"/> PERSONAL INJURY					
	AUTOMOBILE LIABILITY					
	<input type="checkbox"/> COMPREHENSIVE FORM			BODILY INJURY (EACH PERSON)	\$	
	<input type="checkbox"/> OWNED			BODILY INJURY (EACH ACCIDENT)	\$	
	<input type="checkbox"/> HIRED			PROPERTY DAMAGE	\$	
	<input type="checkbox"/> NON-OWNED			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$	
B	EXCESS LIABILITY					
	<input checked="" type="checkbox"/> UMBRELLA FORM	BE 133-16-63	12-31-82	BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$ 1,000	\$ 1,000
	<input type="checkbox"/> OTHER THAN UMBRELLA FORM					
	WORKERS' COMPENSATION and EMPLOYERS' LIABILITY			STATUTORY		
	OTHER				\$	(EACH ACCIDENT)

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES

It is hereby agreed and understood that this certificate is issued to comply with the Federal Regulations regarding sudden and accidental pollution.

Cancellation: Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail 60 days written notice to the below named certificate holder, but failure to mail such notice shall impose no obligation or liability of any kind upon the company.

NAME AND ADDRESS OF CERTIFICATE HOLDER:

Environmental Protection Agency
Region 5
230 S. Dearborn Street
Chicago, Illinois 60604
Attn: Thomas Golz

DATE ISSUED: September 1, 1982

James A. Cunningham

AUTHORIZED REPRESENTATIVE

HAZARDOUS WASTE FACILITY
CERTIFICATE OF LIABILITY INSURANCE

1. The Home Insurance Company, P. O. Box 6509, Grand Rapids, Michigan 49506 and National Union Fire Insurance Company, P. O. Box 5058, Southfield, Michigan 48075, [the "Insurers"], hereby certify that they have issued Liability insurance covering Bodily Injury and Property Damage to Quanex Corporation, et al., (the "Insured"), of 4801 Woodway, Houston, Texas 77056, in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 284.147 or 285.147. The coverage applies at EPA MID08276759, Michigan Seamless Tube Division, 400 McMunn Street, South Lyon, Michigan 48178 for sudden accidental occurrences. The limits of liability are \$1,000,000 each occurrence and \$2,000,000 annual aggregate, exclusive of legal defense costs. The coverage is provided under policy numbers (see attached), issued on December 31, 1981. The expiration date of said policies are December 31, 1982.
2. The Insurers further certify the following with respect to the insurance described in Paragraph 1:
 - (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
 - (b) The Insurers are liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the Insured for any such payment made by the Insurers. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 284.147(f) or 285.147(f).
 - (c) Whenever requested by a Regional Administrator of the U. S. Environmental Protection Agency (EPA), the Insurers agree to furnish to the Regional Administrator a signed duplicate original of the policy and all endorsements.
 - (d) Cancellation of the insurance, whether by the Insurers or the Insured, will be effective only upon written notice and only after the expiration of sixty (60) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.
 - (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Regional Administrator(s) of the EPA Region(s) in which the facility(ies) is (are) located.

HAZARDOUS WASTE FACILITY
CERTIFICATE OF LIABILITY INSURANCE

- Continued -

I hereby certify that the wording of this instrument is identical to the wording specified in 40 CFR 284.151(j) as such regulation was constituted on the date first above written, and that the Insurers are licensed to transact the business of insurance, or eligible to provide insurance as an Excess or Surplus Lines Insurer, in one or more States.

The Home Insurance Company
National Union Fire Insurance Company
James A. Cunningham *James A. Cunningham*
Authorized Representative of The Home Insurance Company
and National Union Fire Insurance Company
Frank B. Hall & Co. of Michigan
P. O. Box 260-A
Detroit, Michigan 48232

Certificate of Insurance

ND 082767591

acord

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER.
THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

NAME AND ADDRESS OF AGENCY

FRANK B. HALL & CO. OF MICHIGAN
P. O. BOX 260 - A
DETROIT, MICHIGAN 48232
PHONE 313-259-0200

COMPANIES AFFORDING COVERAGES

COMPANY LETTER **A** The Home Indemnity Company

COMPANY LETTER **B**

COMPANY LETTER **C**

COMPANY LETTER **D**

COMPANY LETTER **E**

NAME AND ADDRESS OF INSURED

Quanex Corporation
4801 Woodway
Houston, Texas 77056
313 437 8117

mel. Robinson
Peter Peter Farquhar
Farquhar

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE	XXXXXXXXXXXXXXXXXXXX	
				EACH OCCURRENCE	AGGREGATE
	GENERAL LIABILITY <input type="checkbox"/> COMPREHENSIVE FORM <input type="checkbox"/> PREMISES—OPERATIONS <input type="checkbox"/> EXPLOSION AND COLLAPSE HAZARD <input type="checkbox"/> UNDERGROUND HAZARD <input type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS HAZARD <input type="checkbox"/> CONTRACTUAL INSURANCE <input type="checkbox"/> BROAD FORM PROPERTY DAMAGE <input type="checkbox"/> INDEPENDENT CONTRACTORS <input type="checkbox"/> PERSONAL INJURY			BODILY INJURY \$ \$	\$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> COMPREHENSIVE FORM <input type="checkbox"/> OWNED <input type="checkbox"/> HIRED <input type="checkbox"/> NON-OWNED			BODILY INJURY (EACH PERSON) \$ \$ BODILY INJURY (EACH ACCIDENT) \$ \$ PROPERTY DAMAGE \$ \$ BODILY INJURY AND PROPERTY DAMAGE COMBINED \$ \$	\$ \$ \$ \$
	EXCESS LIABILITY <input type="checkbox"/> UMBRELLA FORM <input type="checkbox"/> OTHER THAN UMBRELLA FORM			BODILY INJURY AND PROPERTY DAMAGE COMBINED \$ \$	\$ \$
	WORKERS' COMPENSATION and EMPLOYERS' LIABILITY			STATUTORY \$ (EACH ACCIDENT)	
A	OTHER Pollution Liability Sudden and Accidental Coverage	GL994040 (Excl. Texas) GA996732 (Texas)	12-31-81	\$ 1,000,000. each occurrence \$ 2,000,000. aggregate	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES

Cancellation: Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail _____ days written notice to the below named certificate holder, but failure to mail such notice shall impose no obligation or liability of any kind upon the company.

NAME AND ADDRESS OF CERTIFICATE HOLDER:

RCRA Region 5
230 South Dearborn
P. O. Box A-3857
Chicago, Illinois 60604

DATE ISSUED: July 13, 1981

Richard R. Love
Richard R. Love AUTHORIZED REPRESENTATIVE

Certificate of Insurance



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NAME AND ADDRESS OF AGENCY

FRANK B. HALL & CO. OF MICHIGAN
P. O. BOX 260 - A
DETROIT, MICHIGAN 48232
PHONE 313-259-0200

COMPANIES AFFORDING COVERAGES

COMPANY LETTER **A** The Home Indemnity Company

COMPANY LETTER **B**

COMPANY LETTER **C**

COMPANY LETTER **D**

COMPANY LETTER **E**

NAME AND ADDRESS OF INSURED

Quanex Corporation
4801 Woodway
Houston, Texas 77056

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE	COVERAGE	
				EACH OCCURRENCE	AGGREGATE
	GENERAL LIABILITY				
	<input type="checkbox"/> COMPREHENSIVE FORM			BODILY INJURY	\$
	<input type="checkbox"/> PREMISES—OPERATIONS			PROPERTY DAMAGE	\$
	<input type="checkbox"/> EXPLOSION AND COLLAPSE HAZARD				
	<input type="checkbox"/> UNDERGROUND HAZARD			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$
	<input type="checkbox"/> PRODUCTS/COMPLETED OPERATIONS HAZARD				
	<input type="checkbox"/> CONTRACTUAL INSURANCE			PERSONAL INJURY	\$
	<input type="checkbox"/> BROAD FORM PROPERTY DAMAGE				
	<input type="checkbox"/> INDEPENDENT CONTRACTORS				
	<input type="checkbox"/> PERSONAL INJURY				
	AUTOMOBILE LIABILITY				
	<input type="checkbox"/> COMPREHENSIVE FORM			BODILY INJURY (EACH PERSON)	\$
	<input type="checkbox"/> OWNED			BODILY INJURY (EACH ACCIDENT)	\$
	<input type="checkbox"/> HIRED			PROPERTY DAMAGE	\$
	<input type="checkbox"/> NON-OWNED			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$
	EXCESS LIABILITY				
	<input type="checkbox"/> UMBRELLA FORM			BODILY INJURY AND PROPERTY DAMAGE COMBINED	\$
	<input type="checkbox"/> OTHER THAN UMBRELLA FORM				
	WORKERS' COMPENSATION and EMPLOYERS' LIABILITY			STATUTORY	\$ (EACH ACCIDENT)
A	OTHER Pollution Liability Sudden and Accidental Coverage	GL994040 (Excl. Texas) GA996732 (Texas)	12-31-81	\$ 1,000,000. each occurrence \$ 2,000,000. aggregate	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES

Cancellation: Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail _____ days written notice to the below named certificate holder, but failure to mail such notice shall impose no obligation or liability of any kind upon the company.

NAME AND ADDRESS OF CERTIFICATE HOLDER:

RCRA Region 5
230 South Dearborn
P. O. Box A-3857
Chicago, Ill.

DATE

Richard R. Love

1981

AUTHORIZED REPRESENTATIVE

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of September 20, 1984 by and between Quanex Corporation, a Delaware corporation, the "Grantor," and Manufacturers National Bank of Detroit, a national bank, the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or postclosure care of the facility.

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The trustee shall not be responsible for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Closure and Post-Closure Care. The Trustee shall make payments from the Fund as the EPA Regional Administrator shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the EPA Regional Administrator from the Fund for closure and post-closure expenditures in such amounts as the EPA Regional Administrator shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the

Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) the Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution un-invested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible

to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by the law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all document of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by any agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the

Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken

hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and the successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the appropriate EPA Regional Administrator, by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the

Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust

Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Michigan.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the

wording specified in 40 CFR 264.151(a)(1) as such regulations were constituted on the date first above written.

QUANEX CORPORATION

Patricia A. Test

By: Patricia A. Test
Its: Treasurer

Seal:

State of Texas

County of Harris

On this 20th day of September, 1984, before me came Patricia A. Test to me known, who, being by me duly sworn, did depose and say that her place of business is 1900 West Loop South, Suite 1500, Houston, Texas 77027, that she is Treasurer of Quanex Corporation, the corporation described in and which executed the above instrument: that she knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that she signed her name thereto by like order.

James W. Branwell

Notary Public Harris, County,
Texas

My commission expires on: 9/27/86

Attest:

Mark Nelson

MANUFACTURERS NATIONAL BANK OF DETROIT

Gary A. Failla

By: GARY A. FAILLA
Its: SECOND VICE PRESIDENT
AND TRUST OFFICER

Seal:

SCHEDULE A

<u>Facility</u>	<u>EPA ID#</u>	<u>Closure Cost Estimate</u>
Michigan Seamless Tube Division 400 McMunn Street South Lyon, Michigan 48178	MID-082767591	\$2,044,096.00

SCHEDULE B

Irrevocable Letter of Credit issued by First National
Bank of Chicago dated September 20, 1984.

EXHIBIT A

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing signed by the persons listed below or such designees as the Grantor may designate by

Amendment:

- (1) Patricia A. Test
Treasurer
Quanex Corporation
- (2) D. J. Staas
Vice President-Finance
Quanex Corporation
- (3) Adrian D. Shelley
Assistant to the Treasurer
Quanex Corporation

HAZARDOUS WASTE FACILITY
CERTIFICATE OF LIABILITY INSURANCE

1. Transportation Insurance Company of Chicago, Illinois and CIGNA Insurance Co. of Troy, Michigan, respectively the "Insurers", hereby certifies that they have issued Liability insurance covering Bodily Injury and Property Damage to Michigan Seamless Tube Division of Quanex Corporation, the "Insured", of 1900 W. Loop South, Suite 1500 - Houston, Texas 77027 in connection with the Insured's obligation to demonstrate financial responsibility under 40 CFR 264.147 or 265.147. The coverage applies to EPA ID. No. MID 082767591, c/o Michigan Seamless Tube Division - 400 McMunn Street, South Lyon, Michigan 48178 for sudden accidental occurrences. The limits of liability are \$1,000,000 each occurrence and \$2,000,000 annual aggregate, exclusion of legal defense costs. The coverage is provided under Policy Numbers CCP 001702072, RDX 1784912 and XBC 154249, issued on December 31, 1984.
2. The Insurers further certifies the following with respect to the insurance described in Paragraph 1:
 - (a) Bankruptcy or insolvency of the insured shall not relieve the Insurers of their obligations under the policies.
 - (b) The Insurers are liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the Insured for any such payment made by the Insured. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 40 CFR 264.147(f) or 265.147(f).
 - (c) Whenever requested by the Executive Director of the United States Environmental Protection Agency - Region V, the Insurers agree to furnish to the Executive Director a signed duplicate original of the policies and all endorsements.



2-WAY MEMO FOR REVIEW OF
FINANCIAL ASSURANCE MECHANISMS

TO: GOLDIE SEALS
PERMIT WRITER: George Hamper
DATE: May 1, 85
FACILITY NAME: Duane's Corp
Michigan Seamless Tube
ID#: NID082767591
DUE DATE: May 6, 85

TO: PERMIT WRITER
FROM: GOLDIE SEALS
DATE: May 6, 85

Financial assurance for closure is:

- ☐ adequate
☒ inadequate (see attachment)

Financial assurance for post-closure is:

- ☐ adequate
☒ inadequate (see attachment)
☐ not applicable

Financial assurance for liability (sudden) is:

- ☐ adequate
☒ inadequate (see attachment)

Financial assurance for liability (nonsudden) is:

- ☐ adequate
☒ inadequate (see attachment)
☐ not applicable

Quanex Corporation
1900 West Loop South
Suite 1500
Houston, TX 77027
(713) 961-4600



May 7, 1985

Regional Administrator
Region 5
250 South Dearborn Street
Chicago, Illinois 60604

Attn: Mr. George Hamper

Re: EPA Identification Number: MID 082767591

Dear Mr. Hamper:

I am the chief financial officer of Quanex Corporation, 1900 West Loop South, Suite 1500, Houston, Texas 77027. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in Subpart H of 40 CFR Part 264 and 265.

1. This firm is the owner or operator identified above that owns or operates the following facilities for which a financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: Michigan Seamless Tube Division, 400 McMunn Street, South Lyon, Michigan 48178
2. This firm, the owner or operator identified above, guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure or post-closure care of the following facilities owned or operated by subsidiaries of this firm. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: Michigan Seamless Tube - Closure: \$2,044,096.
3. In States where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this owner or operator is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: None
4. The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None
5. This firm is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.
6. The fiscal year of this firm ends on October 31. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended October 31, 1984.

Quanex Corporation
1900 West Loop South
Suite 1500
Houston, TX 77027
13) 961-4600

RECEIVED

JAN 16 1987



George Hamper

January 9, 1987

Regional Administrator
Region 5, Environmental Protection Agency
250 South Dearborn Street
Chicago, IL 60604

U.S. EPA, REGION V

F.R. Mason
Vice President
Chief Financial Officer

Attention: Mr. George Hamper

RE: EPA Identification Number: MID 082767591

Gentlemen:

U.S. EPA, REGION V

I am the Chief Financial Officer of Quanex Corporation, 1900 West Loop South, Suite 1500, Houston, Texas 77027. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in Subpart H of 40 CFR Part 264 and 265.

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265:

Quanex Corporation
Michigan Seamless Tube Division
400 McMunn Street
South Lyon, MI 48178

EPA Identification Number
MID 082767591

1. The owner or operator identified above owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: Michigan Seamless Tube Division, 400 McMunn Street, South Lyon, Michigan 48178.
2. The owner or operator identified above guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: Michigan Seamless Tube Division - Closure: \$895,140.
3. In states where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this owner or operator is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: None
4. The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a state through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent state mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None

This owner or operator is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on October 31. The figures for the following items marked with an asterisk are derived (see detail in Attachment) from this owner's or operator's independently audited, year-end financial statements for the latest completed fiscal year, ended October 31, 1986.

FINANCIAL HEADER SCREEN

Quanex Corp
South Lyen, MI

FINANCIAL HEADER SCREEN
FACILITY ID: MLD082767591

NEW ENTRY ☒

CHANGE ENTRY -

DELETE ENTRY -

FINANCIAL TYPE: C.

EVALUATION STATUS: (NA) - (NE) -
APPLICABILITY: A

EVALUATION DATE: 8/6/02/24
ADEQUACY FLAG: Y

UNKNOWN: - EST AMT: 2,044,096

AMOUNT PER OCCURRENCE: -----

ANNUAL AGGR AMT: -----

PRIOR COST ESTIMATE: -----

NON-SUD SUB DUE DATE: -----

COMMENT TEXT (80 CHARACTERS MAXIMUM) :

2-25-86 MB

INSTRUMENT DATA SCREEN

Quanex Corp
South Lyon, MI

FACILITY ID: ^{MID} 082-767591 INSTRUMENT DATA SCREEN

NEW ENTRY -

CHANGE ENTRY -

DELETE ENTRY -

LEADER TYPE: - C INST CODE: EF SEQUENCE NO: --
RESPONSIBLE AGENCY: E RESPONSIBLE PERSON: GES
MOUNT PER OCCUR: 2,044,096 ANNUAL AGGREGATE AMOUNT: 2,044,096
AMOUNT COVERED : 2,044,096 CURRENT VALUE : -----
PAYMENTS : ----- FINANCIAL INSTR STATUS : A
DATE EFFECTIVE : 841031 DATE EXPIRES: 851031 MULTI FAC IND: -
TRUST FUND PAY-IN PERIOD: -- INSTR NUMBER: -----
FREE FIELD1: B FREE FIELD2: -- FREE FIELD3: --- FREE FIELD4: ---
COMMENT TEXT (80 CHARACTERS MAXIMUM) :

FINANCIAL ACTION LINKED TO -----
FINANCIAL ACTION LINK CHANGED FROM ----- TO -----
DELETE FINANCIAL ACTION LINK TO -----

2-25-86 MB

①

FINANCIAL PARTIES SCREEN

FINANCIAL PARTIES

MD 082767591
FACILITY ID: ssd#####

NEW ENTRY -
CHANGE ENTRY -
DELETE ENTRY -

NAME Touche Ross & Company
MAILING ADDRESS 1200 Smith Street
CITY Houston
STATE TX
ZIP CODE 77002

COMMENT TEXT (80 CHARACTERS MAXIMUM) :

FINANCIAL HEADER SCREEN

Quanex Corp
South Lyon, MI

FINANCIAL HEADER SCREEN
FACILITY ID: ~~MD 082-167591~~

NEW ENTRY -

CHANGE ENTRY -

DELETE ENTRY -

FINANCIAL TYPE: S

EVALUATION STATUS: (NA) - (NE) -
APPLICABILITY: A

EVALUATION DATE: 86-02-25
ADEQUACY FLAG: Y

UNKNOWN: - EST AMT: -----

AMOUNT PER OCCURRENCE: 6,000,000

ANNUAL AGGR AMT: 2,000,000

PRIOR COST ESTIMATE: -----

NON-SUD SUB DUE DATE: -----

COMMENT TEXT (80 CHARACTERS MAXIMUM) :

2-27-83 VB

INSTRUMENT DATA SCREEN

Quanex Corp.
South Lyon, MI

FACILITY ID: MID 08276759/ INSTRUMENT DATA SCREEN

NEW ENTRY -

CHANGE ENTRY -

DELETE ENTRY -

HEADER TYPE: S INST CODE: M SEQUENCE NO: --
RESPONSIBLE AGENCY: E RESPONSIBLE PERSON: GES
AMOUNT PER OCCUR: 1,000,000 ANNUAL AGGREGATE AMOUNT: 2,000,000

AMOUNT COVERED : -----
PAYMENTS : -----

CURRENT VALUE : -----
FINANCIAL INSTR STATUS : A

DATE EFFECTIVE : 841231 DATE EXPIRES: 0000 MULTI FAC IND: -
TRUST FUND PAY-IN PERIOD: -- INSTR NUMBER: -----

FREE FIELD1: - FREE FIELD2: -- FREE FIELD3: --- FREE FIELD4: ---

COMMENT TEXT (80 CHARACTERS MAXIMUM) :

FINANCIAL ACTION LINKED TO -----
FINANCIAL ACTION LINK CHANGED FROM ----- TO -----
DELETE FINANCIAL ACTION LINK TO -----

2

FINANCIAL PARTIES SCREEN

FINANCIAL PARTIES

FACILITY ID: MD 082 767591
SSD#####

NEW ENTRY -
CHANGE ENTRY -
DELETE ENTRY -

NAME Transportation Insurance Co. CIGNA
MAILING ADDRESS P.O. Box 260-A
CITY Detroit
STATE MI
ZIP CODE 48232

COMMENT TEXT (80 CHARACTERS MAXIMUM) :